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THE USA/USSR ARMS CONTROL RELATIONSHIP AND ITS IMPACT ON THE CWC

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Arms control in the second half of the Twentieth Century had two principal components: bilateral agreements between the two superpowers, which mostly related to the regulation of their relationship as antagonists with large nuclear arsenals; and multilateral conventions affecting the military capabilities of all or regionally limited groups of states.

The SALT and START treaty process was strictly between the two and kept them locked in negotiations for twenty years or so with the process as important as the occasional output in the form of ratified treaties.

The 1963 Moscow Treaty, banning nuclear testing in all environments apart from underground, was negotiated between three nuclear weapon states (the UK being the other partner). Once agreed and signed by the three it was opened for other states to sign but they had no role in setting its terms. When, ten years later, the USA and USSR decided that the treaty needed to be extended to limit the size of test explosions they kept the 1974 Threshold Test Ban Treaty and its related 1976 Peaceful Nuclear Explosions Treaty as bilateral agreements. (Although they encouraged the other nuclear weapon states to announce that they would act as though bound by them.)

During the late 60s and the 70s multilateral agreements were the province of the ENDC and its successor the CCD. Although any member of the conference could propose draft treaty texts for discussion, the real process started when the permanent co-chairmen, the United States and the Soviet Union, jointly put forward a draft for negotiation. This procedure led to the 1968 Nuclear Non-Proliferation Treaty, the 1971 Seabed Treaty, the 1972 Biological Weapons Convention and the 1977 Environmental Modification Convention. A draft jointly put forward at the end of the life of the CCD and reintroduced into the Conference on Disarmament when that body replaced the CCD in 1979 for a Radiological Weapons Convention did not lead to a successful negotiation.

In July 1974 the US and USSR announced that they had "agreed to consider a joint initiative in the CCD with respect to the conclusion, as a first step, of an international convention dealing with the most dangerous, lethal means of chemical warfare". Nothing more was heard of this until August 1976 when, within a week of the introduction to the CCD by the United Kingdom of a draft Chemical Weapons Convention (the UK had provided the 1969 draft which separated the BWC from previous attempts to tackle CW and BW together), the USA and USSR announced that they had held a round of talks discussing scope and verification of a CWC and that the talks would continue.

Over the next five years a total of ten "rounds" of talks were announced, usually followed by bland communiqués that they had been "useful". Some information did emerge:

In **January 1978** Ambassador Fisher of the USA briefed the press that the Soviet Union had gone a long way towards accepting the idea of on-the-spot inspection on a case-by-case basis if there were suspicion that a chemical was being manufactured "for the wrong purpose".

In **May 1978** a joint statement to the CCD mentioned:

- Progress on scope (the previous reference to "the most dangerous lethal chemicals …" was replaced with the following: "under that criterion, specific chemicals would be prohibited to the extent that they have no justification for industrial, research or other non-hostile civilian purposes, for non-hostile military purposes, or for military purposes not related to chemical warfare"- i.e. a general purpose criterion).
- The need for declaration of stockpiles and chemical weapon production facilities.
- Verification procedures including a "Consultative Committee".

In **July 1979** the two sides reported to the Conference on Disarmament their progress to that date:

- A scope article was in recognisable form but there were still areas of disagreement between the two sides.
- Agreement on toxicity criteria for categorising chemicals.
- The need for a non-transfer obligation.
- Need for declaration of stocks and the timetable for destruction "within 10 years" (this is the first mention of this time frame).
- Need for a Preparatory Commission on signature to allow a Consultative Committee to open at entry into force.
- Reference to "request information and investigation … on site".
- Recourse to Security Council in cases of non-compliance.

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The **January 1980** round was cancelled by the USA as an expression of concern over the Soviet invasion of Afghanistan. However, the two sides made a further report to the CD in July of that year mentioning:

- Elaboration of toxicity categories ("super-toxic lethal", "other lethal", and "other harmful" chemicals differentiated according to LD50 thresholds).
- Declaration of stocks and production facilities "within 30 days" after becoming parties.
- Conversion of chemical weapons production facilities to chemical weapons destruction facilities.
- 1 metric ton limit on production of super-toxic lethal chemicals for non hostile military purposes in single specialised facility.
- Need for provisions for on-site investigation.
- Need for internal measures to "prohibit and prevent" any activity contrary to the provisions of the convention.

A complicating factor in the negotiations at this stage was the continuing debate in the USA regarding the need to produce a stock of binary chemical weapons even as the old style stocks were slated for destruction.

There followed a four year gap in the public record regarding the bilateral process.

Following a deal between the US Administration and Senate, 18 April 1984 saw one of the most significant events in the whole saga of the negotiation of the CWC – the introduction into the CD by the then US Vice-President Bush of the draft text contained in the working paper CD 500. Not only did this 'kick-start' the CD negotiating process but it represented a departure from the old practice (and one of the stated objectives of the bilaterals) for joint presentation of texts for negotiation by the USA and USSR. Although the draft clearly incorporated all the USA/USSR agreements which had been announced prior to its launch, it was also designed to be difficult for the Soviet side to accept.

The bilateral talks, which were restarted in the margins of the CD negotiations in which both states were fully engaged, were from this point on largely about building confidence between the two sides. Despite this, in February 1985 in a statement to a US Senate Armed Services subcommittee a senior ACDA official stated that "The Soviet Union has continued its decade long history of procrastination and delay". The only substantial progress had been "their 1984 acceptance of ideas for continuous monitoring to verify the weapons destruction process".

In October 1985 President Gorbachev proposed a non-proliferation approach to the CW problem. This led to a set of bilateral meetings in Bern, but was publicly rejected by the USA which continued to press for a total ban.

The bilateral process continued through 1986 and 1987. The Congressional Research Service published a summary of progress to the end of March 1987. Important developments were the start of the process of exchange visits to CW related sites in the two countries.

At this time the USSR had a bilateral exchange with the UK which had important consequences for the former's acceptance of challenge inspection. This led to an announcement by Soviet Deputy Foreign Minister Karpov in an interview on BBC Radio 4 that the USSR supported the idea of challenge inspection without the right of refusal.

In October 1987 the Soviet Union offered to reveal the size of its CW stockpile. This offer led to data exchange discussions in December and then to an announcement that Soviet stocks did not exceed 50,000 tonnes. (This was met with Western scepticism. The 1986 UK Defence White Paper estimated the stocks at "300,000 tonnes of nerve agent alone".)

In early March 1988 the two sides stated that they had concluded 'Round 8' in Geneva and that these talks had produced agreement in principle on data exchange and inspections of three 'dedicated sites' and three 'anywhere else'.

At the end of April 1988 further agreement was announced on reduction to security level after eight years. A text had been agreed for destruction of production facilities (which became part of the "rolling text" in the CD) but no agreement was yet forthcoming on protection of sensitive facilities during challenge inspection.

In September 1988 the USSR offered to disclose the locations of its chemical weapon production facilities if the US revealed the size of its CW holdings.

'Round 11' in June 1989 was described as "most productive". It produced agreement on the order of destruction; conditions for exchange of data; and a joint paper on challenge inspection.

Up to this point the emphasis of the bilateral process had been on supporting the objective of a multilateral Chemical Weapons Convention which would form the basis of controlled chemical disarmament by the two powers. A new departure, announced on 2 August 1989, following two years of discussion, was an agreement on the concept that they should inspect each other's chemical weapon stockpiles and destruction processes both before and after conclusion of the CWC. The details of this concept were set out in a Memorandum of Understanding, signed at a meeting in Wyoming on 22-23 September 1989. The process was to include a bilateral verification experiment and data exchange.

- Phase I exchange of general data.
- Phase II detailed data and on-site inspection.
- Reciprocal visits to monitor destruction operations.

The details of implementation were to be worked out in further rounds of bilateral negotiation. The meeting also produced "some" procedures for challenge inspection and order of destruction for introduction into multilateral negotiations.

In the summer of 1990 visits were exchanged including Soviet visits to Tooele, Rocky Mountain and Pueblo and US visits to Chapayevsk and Kambarka.

The Conference on Disarmament intensified its work on the Convention and a completed draft was agreed and transmitted to the United Nations in time for consideration at the 1992 General Assembly. The CWC was opened for signature in Paris in January 1993 and entered into force in April 1997. Meanwhile the bilateral discussions on the implementation of the bilateral process continued in parallel with the work of the OPCW Preparatory Commission, including complete data exchange in May 1994 and trial inspections in the United States and in Russia in November and December 1995 respectively.

Conclusion

It is clear that the international community owes a great debt to the USA and the USSR/Russia as the CWC could not have been concluded without the building blocks which they provided as described above and without their joint commitment to be bound by its provisions. Much of the key sections

of the text relating to chemical weapons and their destruction in Articles III, IV and V; some of the provisions for challenge inspection in Article IX (although others made important contributions); and the related sections of the Verification Annex come directly from them (as was logical as they were the only declared possessors of chemical weapon stocks during the negotiations). The one small complaint relates to their continued fixation on a parallel process once the CWC had been drafted. The Convention includes in Article IV(13) the requirement that:

In carrying out verification activities pursuant to this article and Part IV (A) of the Verification Annex, the Organisation shall consider measures to avoid unnecessary duplication of bilateral or multilateral agreements on verification of chemical weapons storage and their destruction among States Parties.

To this end, the Executive Council shall decide to limit verification to measures complementary to those undertaken pursuant to such bilateral or multilateral agreement …

During the Preparatory Commission phase the USA and - to a lesser degree - Russia insisted that all preparations for inspection at entry into force should be based on the assumption that their bilateral arrangements would be in force and many signatory states supported this position. In fact this was not to be and OPCW found itself with resources significantly less than required for full inspection in both states. The half year delay in ratification of the Convention by Russia meant that the heavy initial inspection load in each state could be handled sequentially and the requirements of the Convention were met but only through remarkable efforts by the fledgling Inspectorate and the management of the Technical Secretariat.

News Chronology February through July 2006

What follows is taken from issues 72 and 73 of the Harvard Sussex Program CBW Chronicle*, which provide a fuller coverage of events during the period under report here, and also identifies the sources of information used for each record. All such sources are held in the Sussex Harvard Information Bank, which is open to visitors by prior arrangement. For access to the* Chronicle*, or to the electronic* CBW Events Database *compiled from it, please apply to Julian Perry Robinson.*

1 February In Bushehr, Iran, during a speech on the Iranian nuclear weapons programme, President Mahmud Ahmadinezhad says: "Those powers whose arsenals are stockpiled with nuclear weapons... those, whose arsenals are filled with biological and chemical weapons, are today confronting our nation's research, science and industrial progress."

Meanwhile, in an article headlined "Britain's nuclear espionage" the *Tehran Times* states: "A careful survey reveals the clandestine dimensions and unconventional activities undertaken by Britain to acquire nuclear weapons technology both before and after World War II… Because weapons of mass destruction bolster the hegemonistic power of a state, London is continuing the process of developing chemical, biological, and nuclear weapons."

1 February In the USA, a resident of New Jersey is charged with threatening to use a weapon of mass destruction and for allegedly posting over two hundred anthrax hoax letters, including one to President George Bush. In November 2005, Derek Brodie confessed to the Federal Bureau of Investigation that, as well as sending a letter to Bush, he had sent ones to King Abdullah of Jordan and the Russian interior minister. The letters each contained a single sheet of paper on which 'ANTRAX' was printed in multicoloured block letters.

2 February In the UK House of Commons, responding to a written question addressed to the Defence Secretary regarding what research has been provided to the Government on a possible relationship between the self-reported use of nerve agent pre-treatment tablets and incidence of Gulf war illnesses, Under-Secretary of State for Defence and Minister for Veterans Don Touhig says:

"Research provided to the Government on possible associations between ill health among veterans of the 1990–91 Gulf conflict and exposures, including nerve agent pre-treatment set tablets, is generally in the form of published peer-reviewed medical/scientific papers and academic systematic reviews of such papers. Two reviews are considered of particular significance and authority.

"The active ingredient in NAPS tablets is the compound Pyridostigmine Bromide (PB). In 2000, the US Institute of Medicine's review *Gulf War and Health: Volume 1. Depleted Uranium, Pyridostigmine Bromide, Sarin, and Vaccines*, concluded that there was inadequate/insufficient evidence to determine whether an association does or does not exist between PB and long-term adverse health effects [see 7 Sep 2000]. In 2003, the UK Medical Research Council's review of research into UK Gulf veterans' illnesses noted that for many years PB has been used routinely to treat neuromuscular disease. This had involved much higher doses administered over long periods of time. No serious side effects have been observed as a result of the use of PB in this latter context [see 22 May 03 and see also 13 Jun 05]."

Responding to a follow-up question as to (1) how many members of (a) the Fourth Armoured Brigade, (b) the Seventh Armoured Brigade, (c) the First Armoured Division Force Maintenance Area, (d) the RAF and (e) the Royal Navy involved in Operation Granby in 1991 have since been examined by the Gulf War Medical Assessment programme; how many in each category were found to be suffering from diagnosed neurological illnesses; and how many in each category are claiming war pensions for (i) neurological illnesses and (ii) non-neuro-

logical illnesses; (2) how many cases of diagnosed (a) neurological and (b) auto-immune illnesses in 1991 Gulf war veterans have been examined by the Gulf War Medical Assessment programme since 1992, Touhig says:

"Since the Gulf Veterans' Medical Assessment programme was established in 1993, it has medically assessed 3,278 1990–91 Gulf veterans. Of those seen, 2,521 were Army, 299 Navy and 458 RAF, of whom 117, 17 and 27 respectively had neurological disorders… No unusual diseases or pattern of diseases were found. Of 161 cases of neurological disorder, the most common was migraine (43), followed by epilepsy (28) {22 idiopathic, 6 post traumatic} and multiple sclerosis (19). Of the 161, only one was medically assessed as a result of service in the Gulf. The remaining 71 veterans suffered a miscellaneous group of disorders, some of a genetic nature, others extant before deployment to the Gulf and others developing many years after return from the Gulf, none of which were assessed by Medical Assessment programme physicians to be caused by either deployment to the Gulf or medical countermeasures used during that campaign.

"In relation to auto-immune illnesses, there have been three cases of systemic lupus erythematosus autoimmune disease, and three cases of common variable immunodeficiency. Two of the latter were asymptomatic and discovered by chance. None of these six cases was assessed as being due to service in the 1990–91 Gulf conflict. However, since 2002, routine investigations for immune diseases have not been routinely undertaken unless clinically indicated… Information is not held centrally on the individual units that patients of the Medical Assessment programme served with in theatre, or the number of war pensions in payment to patients that have attended, and could be obtained only at disproportionate cost."

2 February In the US House of Representatives, Director of National Intelligence John Negroponte presents the *Annual Threat Assessment of the Director of National Intelligence* to the Permanent Select Committee on Intelligence. In his testimony Negroponte says: "We assess that some of the countries that are still pursuing WMD programs will continue to try to improve their capabilities and level of self-sufficiency over the next decade. We also are focused on the potential acquisition of such nuclear, chemical, and/or biological weapons – or the production technologies and materials necessary to produce them – by states that do not now have such programs, terrorist organizations like al-Qa'ida and by criminal organizations, alone or via middlemen… We are working with other elements of the US Government regarding the safety and security of nuclear weapons and fissile material, pathogens, and chemical weapons in select countries."

The *New York Sun* quotes Jamal Ware, spokesman for Committee Chairman Peter Hoekstra, as saying: "The chairman very much believes the issue of weapons of mass destruction is not settled yet and there are sufficient questions of organized looting, transfer to another country or party or things that may have been missed by the [Iraq] survey group [see 6 Oct 04 and 25 Apr 05]. There are enough questions that need to be answered before anyone can say definitively what happened."

With a view to uncovering further information about Iraq's pre-war suspected WMD capabilities, the Committee also studies twelve hours of audio recordings – submitted to the Committee by former federal prosecutor John Loftus – of conversations between Saddam Hussein and other former Iraqi officials. Loftus says he initially acquired the recordings from a former US military intelligence analyst and that they "will be able to provide a few definitive answers to some very important – and controversial – weapons of mass destruction questions".

Regarding a discussion he had with the formerly second in command of the Iraqi Air Force, Georges Sada, who has said that WMD were transferred from Iraq to Syria prior to the US-led invasion of Iraq [see 28 Jan], Hoekstra says: "I talked to one person relatively high up in [the National Intelligence Directorate], and I asked him about [Sada's claims] and asked are they going to follow up, and he looked at me and said, 'No we don't think so', … I am trying to find out if our postwar intelligence was as bad as our prewar intelligence."

2 February The US Army, Marine Corps, Navy and Air Force release *Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Contamination Avoidance*, which is a "multiservice operations publication" that provides tactics, techniques, and procedures for conducting chemical, biological, radiological, and nuclear (CBRN) avoidance operations. The purpose of the document, which is more than 450 pages in length, is to provide a reference for defence personnel to plan, conduct and implement active and passive operations of this kind. It is aimed at command staff, unit leaders and personnel who prepare, conduct and implement such operations.

2 February In Duluth, Minnesota, a conference on *Emerging Bioterrorism Threats in the 21st Century* is scheduled to take place, at which a number of presentations on topics such as smallpox, plague, viral fevers, toxins, delivery methods, detection, symptoms, treatment and equipment are due to be made. Arrowhead Pharmaceutical Representative Association, the sponsor of the event, is an organization of pharmaceutical sales representatives.

2 February In Hawaii, up to 150 munitions containing phosgene, mustard agent and chloropicrin have been found at the Schofield Barracks on the island of Oahu, so reports KHON2 News. Range 5 has been undergoing clearance of basic ordnance since 2004. According to an unidentified witness the agents are contained in 75mm to 155mm rounds, mortars and projectors. The items will be stored at the Barracks until they can be safely disposed of on-site.

3 February The Moscow *Nezavisimoye Voyennoye Obozreniye* – a weekly military newspaper published by *Nezavismaya Gazeta* – runs an interview with Russian Chairman of the State Duma Defence Subcommittee and member of the State Commission on Chemical Disarmament Committee Nikolai Bezborodov on international funding of the Russian chemdemil programme. Bezborodov says: "The Russian Federation was supposed to have put up 60 percent of the money required for the [Shchuch'ye] construction project, and the United States was supposed to contribute the other 40 percent in the form of aid. There is a 'huge gap' between the declarations and the actual funding, however. The Americans put a freeze on financial aid for the Shchuch'ye project and for the Russian chemical weapons destruction program in general from 1999 to 2002. This interrupted the work on the project, and we had to draw up a new schedule."

Meanwhile, Agence France-Presse quotes Sergei Antipov, the deputy director of Russia's Federal Atomic Energy Agency, as saying: "Participants in the Global Partnership program [see 26-27 Jun 02] had promised to spend $1.415 billion on disarmament programs [last year in Russia, but] the contracts concluded until the end of September added up to $354 million."

3 February The US Department of Defense releases its third *Quadrennial Defense Review Report* [see 30 Sep 01], which says that over the next twenty years the USA should prepare for a "long war" with troops deployed, often clandestinely, in dozens of countries at once to fight terrorism and

other non-traditional threats. The 92-page report states:

"The Department will develop new defensive capabilities in anticipation of the continued evolution of WMD threats. Such threats include electro-magnetic pulse, man-portable nuclear devices, genetically engineered biological pathogens, and next generation chemical agents… Since the 2001 QDR, the Department has nearly doubled its investments in chemical and biological defenses and implemented several important organizational changes to address the challenges posed by WMD more effectively. For the next five years, beginning in Fiscal Year 2006, the Department is further increasing funding for the Chemical Biological Defense Program (CBDP) by an additional $2.1 billion (an increase of approximately 20%), focused primarily on improving its research, development and testing infrastructure as well as expanding efforts to improve defenses against emerging chemical and biological threats…

"To achieve the characteristics of the future joint force and build on progress to date, the Department will: Designate the Defense Threat Reduction Agency as the primary Combat Support Agency for US Strategic Command in its role as lead Combatant Commander for integrating and synchronizing combating WMD efforts…. Expand the Army's 20th Support Command (CBRNE) capabilities to enable it to serve as a Joint Task Force capable of rapid deployment to command and control WMD elimination and site exploitation missions by 2007… Expand the number of US forces with advanced technical render-safe skills and increase their speed of response. The Department will develop further recommendations to improve render-safe capabilities for the Fiscal Year 2008 budget… Improve and expand US forces' capabilities to locate, track and tag shipments of WMD, missiles and related materials, including the transportation means used to move such items… Reallocate funding within the CBDP to invest more than $1.5 billion over the next five years to develop broad-spectrum medical counter-measures against advanced bio-terror threats, including genetically engineered intracellular bacterial pathogens and hemorrhagic fevers."

6 February In Munich, discussions are held during which unidentified "Western intelligence" officials inform "defence politicians" that Iran "certainly" has biological agent programmes for the production of mustard gas, tabun, prussic acid, sarin and VX, so reports DPP news agency. Iran, they say, is using a global covert procurement-network in its attempt to acquire microbiological and biotechnical laboratory and production equipment such as centrifuges, freeze dryers and separators. It is also allegedly procuring biological material such as bacterial and fungal strains as well as the corresponding toxins. Research is said to be taking place, in part, in small laboratories at universities.

6 February US President George Bush transmits to Congress his budget request for FY 2007, which includes $439.3 billion in defence spending - about 4.8 per cent more than last year - of which $1.4 billion is allocated for chemdemil (a slight increase on the previous year) and $350 million for the Assembled Chemical Weapons Alternatives (ACWA) programme. The Army is earmarked to receive $38.3 million for CBRN soldier protection; $1,046.3 million for chemdemil operation and maintenance; and $231 million for chemdemil RDT&E. The Office of the Secretary of Defense would, for its Chemical and Biological Defense Program, receive $86.2 million for chem/bio installation force protection; $76.7 million for chem/bio individual protection; $16.8 million for chem/bio decontamination; $47.1 million for the joint bio-defence programme; $43.5 million for chem/bio collective protection; and $236.1 million for chem/bio contamination avoidance. The Defense Advanced Research Projects Agency is earmarked to receive $1,122.4 million for applied research into bio-warfare defence. The following funds are requested for the DoD Chemical and Biological Defense Program: $991.8 million for basic research; $2,804.2 million for applied research; $2,071.1 million for advanced technology development; $731.1 million for advanced component development and prototypes; $2,120.7 million for system development and demonstration; and $801.3 million for RDT&E management support. Under the proposal the Defense Threat Reduction Agency would receive $2,131.5 million for applied research into technology to defeat WMD; $1,050.2 million for applied research into WMD defence technology; and $1,045.8 million for advanced technology development for counter-proliferation initiatives, proliferation prevention and defeat. As regards biodefence, Bush requests an additional $178 million for the Department of Homeland Security on the previous year, which includes $160 million for specific projects to compete for funding under Project BioShield [see 21 Jul 04]. Other agencies – including the Environmental Protection Agency, the Food and Drug Administration and the Centers for Disease Control and Prevention – receive a total increase of $100 million towards protecting the US food supply from terrorist attacks.

Six weeks later, the Russian American Nuclear Security Advisory Council (RANSAC) releases *Preliminary Analysis of the US Department of Defense's Fiscal Year 2007 Cooperative Threat Reduction Budget Request*. The report states: "The [DoD] Cooperative Threat Reduction (CTR) budget proposed for FY 2007 is approximately $372.2 million [$43.3 million less than for FY 2006]… [The budget proposes a] reduction of almost $66 million for Russian [chemdemil] activities (to $42.7 million from $108.5 million), due largely to the advanced design and construction stage of the Shchuch'ye facility… Additional funding of approximately $7.6 million for biological weapons proliferation prevention activities (to $68.4 million from $60.8 million) [is requested], though much of this funding will be focused on projects in non-Russian former Soviet states… [The DoD proposes] a cut of roughly $3.1 million (to $37.5 million from $40.6 million) for the effort to improve border security and intercept WMD smuggling along the land and maritime borders of selected non-Russian former Soviet republics."

Three months later, RANSAC releases *Preliminary Analysis of the US State Department's Fiscal Year 2007 Request for Global WMD Threat Reduction Programs*. The report states: "Funding for the Science Centers program continues its downward trend from FY 2006 as more emphasis is placed on 'graduating' former Soviet WMD experts and institutes from international assistance and pushing them toward self-sustainability. Between FY 2000 and 2005, the Science Centers budget averaged over $30 million per year; for FY 2006 the expected budget is approximately $21.5 million, while in FY 2007 $22.7 million is requested… A significant funding increase is requested for the [BioIndustry Initiative] [see 15 Sep 03], to $13 million from $6 million… The first direct funding is budgeted to develop alternative employment for Iraqi and Libyan WMD experts, though these initiatives would be lightly funded (a total of $3.5 million is allocated in the FY 2007 request)… For fiscal year 2007, approximately $17 million would be provided to the [Bio-Chem Redirect Program, which comes under the BioIndustry Initiative] [see 12 May 04] slightly more than planned for the current fiscal year."

6 February The US Department of Defence releases *The National Military Strategic Plan for the War on Terrorism*, which, amongst other things, orders the military to monitor the acquisition and development of WMD and to recover or eliminate uncontrolled chemical, biological or nuclear materials. *The New York Times* reports that "a senior Pentagon official"

provided it with an unclassified version of the report, dated 1 February 2006, from which a series of "top-secret supplements detailing intelligence activities and military operations" had been removed. Quoting "senior Pentagon officials", the *Times* reports that the classified version for the first time orders the military to focus on nine areas identified as necessary for any terrorist network to operate and warns that ill-conceived military operations could add to terrorists' ranks.

6 February The chief of staff to former US Secretary of State Colin Powell, who helped prepare Powell's speech to the UN Security Council on Iraqi WMD [see 5 Feb 03] says he "participated in a hoax on the American people, the international community, and the United Nations Security Council". In an interview with David Brancaccio of Mathaba.Net, Lawrence Wilkerson says: "I recall vividly the Secretary of State walking into my office… He said: 'I wonder what will happen if we put half a million troops on the ground in Iraq and comb the country from one end to the other and don't find a single weapon of mass destruction?'". [See also 21 Aug 05]

Four days later, writing in the journal *Foreign Affairs*, Paul Pillar – the CIA's national intelligence officer for the Near East and South Asia from 2000 to 2005 – says: "The administration used intelligence not to inform decision-making, but to justify a decision already made… I was in charge of coordinating all of the intelligence community's assessments regarding Iraq; the first request I received from any administration policymaker for any such assessment was not until a year into the war."

7 February In Canberra, during a conference on WMD threats, several speakers opine that the extent of the threat from terrorists using WMD has been exaggerated. Lawrence Freedman, professor of war studies at Kings College, London says: "The most likely terrorist threat is likely to be more ordinary and familiar, but still deadly in its own way." Robert Ayson, the director of studies at the Australian National University, says that governments should separate the debate about terrorist threats from debate on WMD proliferation. "We should be disarming our nightmares", says Ayson. However, Australian Foreign Minister Alexander Downer responds to the above views thus: "Unhappily, the threat of terrorists attempting such attacks is not a hypothetical problem. There is more than en-ough evidence of both intent and attempts to acquire and use weapons of mass destruction." Meanwhile, US Acting Deputy Assistant Secretary of State for Threat Reduction Donald Mahley says that the USA was increasingly concerned about threats of biological weapons and that the USA would continue to do all it could to deter and prevent their development and use.

7 February In Maryland, the chemdemil facility at Aberdeen Proving Ground completes cleaning and decontaminating 1,817 mustard gas containers, which is the second and final phase of weapons processing, known as the Ton Container Cleanout. Last year, the facility completed neutralizing the mustard gas that was stored in the containers [see 11 Mar 05]. According to a Chemical Materials Agency press release it is now expected to take at least two years to fully shut down the site, which is the second facility, after Johnston Atoll, to complete its operations.

7-9 February In Rakitje, Croatia, there is a seminar on *Regional Cooperation and Networking for Member States in South Eastern Europe*, which is jointly organized by the Regional Arms Control Verification and Implementation Assistance Centre (RACVIAC) and the OPCW. The purpose of the seminar – which is now the third event conducted by RACVIAC and OPCW for the CWC parties of the South East European sub-region – is to improve regional cooperation in the field of assistance and protection against a possible threat or use of chemical weapons. It includes a table-top exercise based on scenarios involving regional cooperation in co-ordination and delivery of assistance. Attending the seminar are eighteen participants from the following CWC parties: Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Moldova, Romania, Serbia and Montenegro, Slovenia and Turkey.

8 February The *New York Sun* reports a former special investigator for the Pentagon during the Iraq war as saying that he informed the Iraq Survey Group (ISG) of the existence of four underground sealed bunkers in southern Iraq that likely contained stocks of chemical and biological weapons, but was rebuffed. David Gaubatz, a former member of the Air Force Office of Special Investigations, says that between March and July 2003 he was taken by local contacts in Nasiriyah to four locations – three in and around Nasiriyah and one near the port of Umm Qasr, where he was shown underground concrete bunkers with the tunnels leading to them deliberately flooded. In each case, he says he was told that the bunkers contained stocks of biological and chemical weapons, as well as missiles the range of which exceeded that mandated by the United Nations. However, he failed to effect an entry to any of the bunkers because they were sealed off with concrete walls, in some cases up to five feet thick. He says he filed reports with photographs, exact grid co-ordinates, and testimonies from multiple sources, but the ISG only ever arrived at one site. The reasons he was given by the ISG were that the areas of the sites were not safe, they lacked manpower and equipment, and at the time the ISG was focusing activities in northern Iraq. Gaubatz says that each site he visited had similar characteristics. "Everything was buried and under water. They would drain canals and parts of the rivers. They would build tunnels underneath [wide enough for tractors] and they would let the water come back in [after concrete walls were installed sealing off the secret caches of unconventional arms]." One of the give-aways, he says, was that homes near the sites were equipped with gas masks and other items to protect against chemical weapons.

8-10 February At OPCW headquarters, the eighth [see 040216-18] annual meeting of the Scientific Advisory Board (SAB) of the OPCW takes place. During its agenda item on education and outreach, it reviews the status of the joint OPCW-IUPAC project on codes of conduct and chemistry education and is briefed by the project leader, Alastair Hay of the University of Leeds. The SAB also begins its discussion of how it would contribute to a review of developments in science and technology in preparation for the Second CWC Review, the issues it identifies including (a) developments with regard to new chemicals, processes and production equipment; (b) micro-reactors; (c) nanotechnology; (d) verification technology and equipment; (e) assistance and protection against chemical weapons; (f) opportunities for the OPCW to further develop its international-cooperation portfolio to promote the peaceful application of chemistry; and (g) awareness-raising, education and outreach in order, *inter alia,* to enhance compliance with the Convention. It is briefed by Alexander Kelle of Belfast University on a workshop conducted at his university during 13-14 January on *Preventing the Misuse of 21st Century Chemistry: State of the Art of Drug Development and Delivery, and Selected Enabling Technologies*. It proposes the establishment of a new Temporary Working Group on advances

in technology and their potential impact on the implementation of the Convention. This proposal is subsequently endorsed by the Director-General, who invites interested states-parties to submit nominations for the new group.

9 February In Washington, DC, a false alarm from an air-monitoring security sensor indicates the presence of a nerve agent in the Russell Senate office building and prompts officials to quarantine about 200 people including nine senators in a parking garage for three hours.

Nine weeks later, Dirksen Senate office is closed after a sensor indicates the presence of a nerve agent near a post office site in the basement of the building. The building is reopened in the evening after tests determine that the substance is harmless.

9 February The US Department of Health and Human Services issues *Shipping Instructions for Specimens Collected from People Potentially Exposed to Chemical Terrorism Agents*. The instructions set out procedures to be followed with regard to: collecting specimens, labelling, packaging, preparing documentation, preparing packaged specimens for shipment, and shipping specimens.

9 February In Arizona, a man has pleaded guilty to federal charges that he tried to make ricin, according to the Associated Press. Casey Cutler claims he tried to make ricin after being attacked in April 2005 and planned to use the agent on other would-be attackers. According to the plea document, he obtained the ingredients from the Internet, but he used castor oil as he could not obtain castor beans. He then proceeded to wear a vial around his neck which contained the white substance that he made. Though initial tests showed up positive for ricin, subsequent tests proved negative.

10 February The Syrian state newspaper *El-Thawra* has used a 1998 report by *The* (London) *Sunday Times* that documented Israeli development of biological weapons, to imply that Israel is behind the outbreak of bird flu, so reports IsraelNationalNews.com. *The Times* report stated that Israeli scientists have been working to identify genes that are characteristic to Arabs with a view to developing diseases that would target such genes. The paper adds the presence of bird flu in the Far East is nothing more than an attempt to mislead the international community. It also states that Israel used one such disease to the kill Yasser Arafat [see 11 Nov 04 and also 8 Sep 05].

10-12 February In the UK, at Ditchley Park in Oxfordshire, there is a Ditchley Foundation conference on *Is Non-Proliferation Policy Heading for Failure?* which is chaired by former Executive-Chairman of UNMOVIC Hans Blix. Participants note that, though public opinion in a number of countries recognizes the threat of a terrorist WMD attack, the attention being given to biological and chemical weapons issues is decreasing as the use of such weapons by states appears increasingly unlikely. This is in contrast to the growing tendency recently for certain states to use rhetoric that implied the "usability" of nuclear weapons, which, as political disputes and cultural polarisation intensified, was beginning to generate a new sense of global vulnerability. It is suggested that states with nuclear weapons should exercise more care in this area, in case it increased the incentive for non-nuclear states to acquire other WMD as a deterrent, most probably in a covert way. The participants therefore conclude that at the 2006 BWC Review Conference states parties should examine whether more operational mechanisms should be devised to ensure that the norms set out in the BWC are respected and implemented.

13 February In Tokyo, there is the third [see 9 Feb 05] Asian Senior-level Talks on Non-Proliferation (ASTOP), which is attended by officials from the Association of Southeast Asian Nations (ASEAN) countries, Australia, China, South Korea, USA and Japan. Matters discussed include raising awareness among the participating countries about the issues related to the implementation of UN Security Council resolution 1540 [see 28 Apr 04], and the difficulties and obstacles that these countries may face in implementing treaties and norms relating to disarmament and non-proliferation.

13 February In London, the High Court approves a settlement reached between the Ministry of Defence (MoD) and the family of Ronald Maddison under which the MoD admits 'gross negligence' in respect of the 'conduct and planning' as opposed to a lack of consent, the effect of which being that the verdict of 'unlawful killing' reached by an inquest two years ago [see 15 Nov 04] will stand. Maddison died after participating in an experiment with sarin at the MoD Chemical Defence Establishment, Porton Down, in 1953. The MoD had argued that coroner David Masters was "wrong in law" to allow the jury to reach a verdict of unlawful killing based on gross negligence in failing to obtain consent, arguing there was insufficient evidence to prove such a verdict [see 19 Apr 05]. Lord Justice Richards, sitting with Justice David Clarke, rules that the court has the power to amend the inquest findings accordingly and states that the settlement is "a responsible compromise". Lord Justice Richards says the MoD had a "strongly arguable" case that there had been insufficient evidence to support an unlawful killing verdict based on allegations that Maddison had not formally consented to the experiment. In approving the settlement Lord Justice Richards says: "The public interest has already been substantially served by the second inquest, which brought into the open the full circumstances of the nerve agent experiments conducted at Porton Down and how the deceased met his death… The retention of a verdict of unlawful killing ensures that the message resulting from that second inquest is not diluted… Whilst recognising the strength of feeling on behalf of the Porton Down Veterans Group, we don't feel there is sufficient general public interest to be served by a further legal and factual assessment concerning consent to non-therapeutic tests such as occurred in this case." The MoD, however, agreed that unlawful killing was a proper verdict based on the fact that the way the experiment had been conducted and planned was grossly negligent. The Porton Down Veterans Group says that the settlement "smothers" evidence that Maddison never gave his informed consent to the experiment.

13 February In the UK, BBC Radio 4 broadcasts *Hotel Anthrax*, the first in a two-part series which tells the story of the agreement between the Seventh-day Adventist Church and the US Army in the 1950s, under which the former agreed to provide volunteers for biological experiments at Fort Detrick. The volunteers were conscientious objectors who agreed to participate in the experiments in return for being exempted from military service. Between 1954 and 1973 more than 2,000 volunteers, nicknamed the 'white coats' worked as laboratory technicians as well as participating in experiments to test the effectiveness of new vaccines and antibiotics. George Shores tells of how he was infected with tularaemia inside a giant metal sphere, known as the Eight Ball because of its resemblance to a snooker ball. "They had like telephone booths all the way around the outside of the Eight Ball and you went into

the telephone booth and shut the door and put on a mask like a gas mask… It was hooked up to the material that was inside the Eight Ball and you breathed it in… Even my gums hurt. I don't think I have ever been so sick in all my life. First it started as a headache and achy feelings and it just kept progressing… I just wanted to breathe enough to keep alive. I would just take little gasps of breath and I would hold it for as long as I could because it hurt so bad… I can imagine if someone was using that agent in the battlefield the soldier would just have to lie down – he would not be able to function."

The programme hears from Wally Pannier, whose job in 1966 was to drop light bulbs carrying *Bacillus globigii* on the New York underground network. He would then measure how the simulant might spread in the event of a real attack, using a motorized vacuum device concealed inside a suitcase. "We'd just drop light bulbs with the powdered simulant inside... I think it spread pretty good because you had a natural aerosol developed every few minutes from every train that went past."

14 February In the UK House of Commons, responding to a written question addressed to the Defence Secretary regarding the latest assessment of the scale, nature and causes of Gulf War-related illnesses, Under-Secretary of State for Defence and Minister for Veterans Don Touhig says:

"Over 53,000 United Kingdom Servicemen and women deployed to the Gulf in 1990–91. We do not know how many UK Gulf veterans are ill or what illnesses they have reported because there is no single database, not least with respect to those who have left the armed forces whose current records the Department does not hold. However, at the end of September 2005, some 2,960 Gulf veterans were in receipt of a war disablement pension and 2,445 veterans had received a gratuity for disablements assessed at under 20 per cent. There will be some overlap between those figures, as some individuals will have received first a gratuity and then, if this disablement has become more severe, a pension. The awards will not necessarily relate to the individual's service in the Gulf and we would expect a substantial proportion to relate to non-Gulf service.

"In some cases veterans' illnesses are due to disorders which are unrelated to service. The majority will be musculoskeletal conditions relating most commonly to injuries sustained in training, operations or fitness activities. Others are recognised medical conditions such as PTSD, where service links may again be accepted. A third group relates to multi-system, multi-organ, non-specific, medically unexplained symptoms and illnesses which epidemiological evidence shows are not specific to, but are more common among those who served in 1990–91.

"The pattern of ill health is not unique to UK Gulf veterans, and is repeated among 1990–91 Gulf veterans from the other coalition countries. Evidence so far suggests that this is unaffected by the specific experiences and exposures of the personnel concerned. Similar symptoms and illness are also reported among personnel who did not deploy. There is no consensus either in the US or the UK as to the causes of the non-specific conditions commonly covered by the umbrella term 'Gulf War Syndrome'."

14 February The London *Daily Telegraph* reports on *The Conquest of Malaria* – to be released in London next month – in which author Frank Snowden, Yale University, states that in 1943 Germany released malaria-carrying mosquitoes in an attempt to halt the advance of British and US troops from the south of Italy. The book, which draws on US archives and the diaries of Italian soldiers, states that the attack was planned in the autumn of 1943 by Erich Martini, a medical entomologist, Nazi party member and friend of Heinrich Himmler, head of the Schutzstaffel (SS). The Germans, says Snowden, flooded the Pontine Marshes that lay thirty miles to the south of Rome by reversing the pumps that drained them and then introducing millions of larvae of *anopheles labranchiae* – a species of malaria-carrying mosquito. The marshes were drained during the 1930s by order of Benito Mussolini. However, the Allied forces, who landed at Anzio just south of the marshes, had already been administered with anti-malarial drugs and so were unaffected. Snowden states, however, that among the local population of 245,000, official figures of cases of malaria show a rise from 1,217 in 1943 to 54,929 in 1944, though he suggests that the actual increase in the number of cases was much higher. According to Snowden, in September 1943 the Wehrmacht ordered the evacuation of all remaining civilians who lived within a radius of ten kilometres of the shore to ensure that there were no eye witnesses to the incident.

14-15 February In Tokyo, there is a seminar on *Future Measures for Strengthening the BWC Regime*, which is co-hosted by the Japanese Ministry of Foreign Affairs and the Center for the Promotion of Disarmament and Non-Proliferation of the Japan Institute of International Affairs. Around seventy participants from twenty-six governments, academic institutions and international organizations discuss the current state of the BWC, exchange ideas, and discuss effective approaches to the sixth Review Conference. There are three sessions: 'The current state of the BWC', 'Article by article review', and 'Prospects toward 2006 and beyond'. In the discussions, participants exchange their views on the preparatory work required by each country and lay out a road map for the Review Conference.

Senior Adviser to the State Department Bureau of International Security and Nonproliferation Carolyn Leddy says: "The Bush Administration supports meaningful, dynamic and proactive strategies to confront proliferation, but we will not accept lowest common denominator approaches which will have little, if any, effect… [T]he Bush Administration will not return to the Protocol negotiations or negotiations on any verification mechanism whatsoever for the BWC. Leaving aside the issue of a verification mechanism for the BWC, we are aware that there are a number of other ideas that seem to be gaining steam. In examining any of these proposals, the litmus test for the United States will be their relevance to the post-9/11 international security environment in which we cannot remain passive, but must succeed in our efforts to eliminate the proliferation of weapons of mass destruction – anything less is not an option."

Agence France-Presse quotes an unidentified Japanese foreign ministry official as saying: "Although there were some differences in opinions of participants, the overall direction of the talks was that it needs to be recognized that there is a limited efficiency in inspection… There was a sense of crisis in the Tokyo conference that if people fail to agree on anything, the credibility of the BWC will be lost."

On the second day the participants convene to discuss *New Biological Threats and the International Response*.

15 February In Amman, the State Security Court sentences nine men to death for plotting a chemical weapons attack in Amman two years ago [see 13 Apr 04], so reports the *Jordan Times*. Abu Musab al-Zarqawi [see 11 Sep 05], Shawqi Ahmad, Ibrahim Mohammad, and Sulayman Khalid Darwish (Syrian nationality) are sentenced *in absentia*. They, together with the mastermind of the plot, Azmi al-Jayousi, Husayn Mustafa, Ahmad Samir, Hasan Samik and Anas Amin (Syrian nationality), are convicted of "manufacturing and possessing

explosives with illicit intent". Wasim Muhammad is sentenced to three years' imprisonment for "plotting actions that were not allowed by the government"; Jamal al-Daghidi is given one-year imprisonment for being an accessory to the crime of harbouring a fugitive, however, he is released as he has completed his sentence. Two other defendants are acquitted of charges against them "because they had no knowledge of the terror plots". Last year, al-Jayousi and three other defendants, who belonged to Kata'ib al-Tawhid [Brigades of Monotheism], admitted they planned to target the government and the General Intelligence Department in 2004 with vehicles laden with explosives [see 13 Jul 05]. [See also 15 Dec 04]

15 February From New York, ABC News reports that it has obtained twelve hours of tape recordings of Saddam Hussein meeting with top aides in his presidential office during the 1990s – recorded by Hussein himself – [see also 2 Feb] including a meeting in which Hussein Kamel speaks openly about hiding information from UNSCOM. In the meeting, which took place in April or May 1995, Kamel, Saddam Hussein's son-in-law and the person then in charge of the Iraqi WMD programme, is quoted as saying: "We did not reveal all that we have… Not the type of weapons, not the volume of the materials we imported, not the volume of the production we told them about, not the volume of use. None of this was correct." Shortly after the meeting Kamel defected to Jordan [see 8 Aug 95] and Iraq was forced to admit that it had concealed its biological weapons programme [see 13 Aug 95]. He later returned to Iraq and shortly thereafter was killed by Iraqi security forces [see 20 Feb 96]. ABC News obtained the tapes from Bill Tierney, a former member of UNSCOM who translated them for the FBI. ABC refers to unidentified "officials" as having confirmed the tapes are authentic, and that they are among hundreds of hours of tapes recorded by Hussein in his presidential office.

A spokeswoman for Director of National Intelligence John Negroponte says information contained in the transcriptions of the tapes was already known to intelligence officials. In a statement she says: "Intelligence community analysts from the CIA, and the DIA reviewed the translations and found that, while fascinating, from a historical perspective the tapes do not reveal anything that changes their post-war analysis of Iraq's weapons programs nor do they change the findings contained in the comprehensive Iraq Survey group report."

Chairman of the House Intelligence Committee Peter Hoekstra says the tapes are authentic and show that "Saddam had a fixation on weapons of mass destruction and he had a fixation on hiding what he was doing from the UN inspectors." Hoeckstra says there are more than 35,000 boxes of such tapes and documents that the US government has not yet analysed nor made public and that these should also be translated and studied on an urgent basis.

15 -18 February In Washington, DC, the fourth annual American Society for Microbiology *Biodefense Research Meeting* takes place.

17 February In Tokyo, police raid two companies suspected of exporting freeze dryers capable of handling bacteria to North Korea via Taiwan in September 2002. Under the Foreign Exchange and Foreign Trade Control Law companies are obliged to apply for a government licence before exporting such items. The companies in question are Seishin Shoji, in Arakawa-ku, and Meisho Yoko, in Bunkyo-ku.

18 February In Alexandria, Virginia, former US Deputy Undersecretary of Defense for International Technology Security John Shaw says "the short answer to the question of where the WMD Saddam bought from the Russians went was that they went to Syria and Lebanon" [see also 13 Dec 05, 28 Jan and 2 Feb]. Speaking at a privately sponsored 'intelligence summit', Shaw says: "[In February and March 2003] they were moved by Russian Spetsnaz (special forces) units out of uniform, that were specifically sent to Iraq to move the weaponry and eradicate any evidence of its existence… The intelligence included multiple sightings of truck convoys, convoys going north to the Syrian border and returning empty." In addition to the convoys, "two Russian ships set sail from the (Iraqi) port of Umm Qasr headed for the Indian Ocean", where Shaw believes they "deep-sixed" additional stockpiles of Iraqi WMD from flooded bunkers in southern Iraq that were later discovered by US military intelligence personnel [see 8 Feb].

Shaw says that the information had originated from David Nicholas, OSCE (Organization for Security and Co-operation in Europe) ambassador to Ukraine, and from Igor Smesko, head of Ukrainian intelligence, both of whom were personal friends of a Ukranian-American aide of Shaw's. During a two-day meeting in London, Shaw learnt that in December 2002, former Russian intelligence chief Yevgeni Primakov left for Iraq where he stayed until just before the US-led invasion [see 20 Mar 03]. Primakov supervised the execution of long-standing secret agreements, signed between Iraqi intelligence and the Russian GRU (military intelligence), that provided for clean-up operations to be conducted by Russian Spetsnaz and GRU teams and Iraqi military personnel, who were to remove WMD, production materials and technical documentation from Iraq. The goal of the clean-up was "to erase all trace of Russian involvement" in Iraqi WMD programmes, and "was a masterpiece of military camouflage and deception". Shaw says this type of GRU operation, known as 'Sarandar', or 'emergency exit', has long been familiar to US intelligence as standard GRU practice.

According to NewsMax.com, however, when Shaw passed the information on to the Defense Intelligence Agency (DIA) and others within the US intelligence community it was dismissed as 'Israeli disinformation'. As regards the CIA, Shaw says: "They trashed one of my Brits and tried to declare him *persona non grata* to the intelligence community… We got constant indicators that Langley was aggressively trying to discredit both my Ukranian-American and me in Kiev [as well my other sources]." He says Defense Department spokesman Laurence DiRita "whispered *sotto voce* to journalists that there was no substance to my information and that it was the product of an unbalanced mind".

Also making a presentation is former FBI translator Bill Tierney who refers to transcripts of taped conversations of Saddam Hussein and other senior officials regarding, *inter alia*, Iraqi WMD programmes [see 15 Feb]. One transcript has Hussein's deputy, Tariq Aziz, talking about what they would do if France and Russia would not assist Iraq with its biological weapons, so reports TheBusinessOnline.com.

18 February In St Louis, Missouri, at the annual meeting of the American Association for the Advancement of Science (AAAS) three panel discussions take place on 'Codes of conduct and the BWC'; 'Biosecurity challenges in the post 9-11 world'; and 'Future potential of biological weapons: science, technology, and policy'. Amongst other things, the panelists assess the present and future development of biological weapons and in this regard warn against overstating the threat posed by bioterrorism. However, they agree that codes of conduct for scientists are necessary and ultimately inevitable as a means of countering the threat from bioterrorism.

20-21 February In Brussels, a civil emergency preparedness exercise, the aim of which is to improve government responses to an incident of biological terrorism, is scheduled to take place at NATO headquarters. Exercise 'Green Cloud', an indoor simulated map exercise, is organized under the auspices of the NATO Partnership for Peace Programme. Participating in the exercise are representatives from Sweden, Austria, Finland and Switzerland.

21 February The US Congressional Research Service releases *'Bunker Busters': Robust Nuclear Earth Penetrator Issues, FY2005-FY2007*, a report which discusses the history of the Robust Nuclear Earth Penetrator in Congress and the Administration for the FY2005 and FY2006 budget cycles. [See also 25 Oct 05]

21-22 February In Prague, Czech Republic, a meeting on *NBC Defence Capabilities* is scheduled to take place. Topics on the agenda are: a systems approach to chemical and biological defence; combating weapons of mass destruction; promoting health service support in an NBC environment; protecting the armed forces against the use of CBRN weapons; and investigating the chemical/biological armament dynamic within a terrorist organization. Those making presentation include Stephen Reeves, Joint Program Executive Officer, Chemical and Biological Defense, US Department of Defense; Charles D Lutes, Senior Military Fellow, US Air Force and Department of Defense; Vratislav Osvald, Czech Republic Armed Forces; Dominique B Werner, Head of Arms Control Unit, Spiez Laboratory, Switzerland; and Jean-Pascal Zanders, Director, BioWeapons Prevention Project, Geneva. Also making speeches are representatives from the Fletcher School at Tufts University; the Dutch, Belgian and Canadian ministries of defence; NATO School, Germany; Hamburg State Fire Department and Emergency Medical Service; Délégation Générale L'Armement; Council of the European Union; and the United Nations Special Commission. The conference is organized by Marcus Evans, which provides and promotes, amongst other things, conferences and corporate hospitality.

21-22 February In New York, the UNMOVIC College of Commissioners convenes for its twenty-second [see 21-22 Nov 05] regular session. As on previous occasions, there are observers from the OPCW and the IAEA.

22 February In Laos, in the Phu Bia area, a government helicopter sprays "chemical agents containing yellow and red color" over people described as veterans of the US secret army, according to a 1 March report by Vang Chia, a military leader of the veterans in Xieng Khoang province, which states that "the people have been experiencing headache, vomiting and diarrhea as the result of this incident".

22 February Haiti deposits its instrument of ratification of the CWC with the UN Secretary-General. In thirty days it will become the 177th [see 25 Jan] party to the Convention.

23 February In Liberec, northern Bohemia, specialists from the thirty-first chemical warfare brigade are on standby in the event of an outbreak of bird flu, so reports CTK news agency. Karel Navratil Navratil, the brigade spokesman, says that the brigade, which is part of the national rescue system, would be sent by an emergency commission into the focus of the infection.

23 February In Switzerland, the Geneva Centre for Security Policy awards its GCSP Prize to Jozef Goldblat in recognition of a "career dedicated to the promotion of peace, international security and disarmament".

23 February Liberia deposits its instrument of ratification of the CWC with the UN Secretary-General. In thirty days it will become the 178th [see 22 Feb] party to the Convention.

24 February In the UK, the government secret intelligence service, MI6, has agreed to an out-of-court settlement to compensate three veterans who, in 1953 and 1954, were administered LSD without their consent at the government's chemical warfare research base at Porton Down, so reports the Today Programme on BBC Radio 4. Don Webb, Logan Marr and a the third man who wanted to remain anonymous had been informed that they were to undergo tests to find a cure for the common cold, but instead underwent mind-control tests which often resulted in extreme hallucinations. According to the BBC, the settlements are thought to be under £10,000 for each of the men. An unidentified spokesman for the Foreign Office, which oversees MI6, is quoted as saying: "The settlement offers were made to the government on behalf of the three claimants which, on legal advice, and in the particular circumstances of these cases, the government thinks it appropriate to accept." The programme says the research was carried out after UK and American governments believed the Soviet Union had developed a 'truth drug' which could compel spies and servicemen to yield up important secrets. On this basis, MI6 scientists decided to test LSD, the closest thing they thought they had to a truth drug.

24 February In Delaware, military personnel recover one of four 75mm shells containing mustard agent that were discovered at a clam processing plant; the remaining three are recovered four days later. All four are taken to the Dover Air Force Base in Delaware to await destruction. [See also 20 Jul 04]

24 February The US Institute of Medicine of the National Academies releases *Disposition of the Air Force Health Study* [AFHS], which states that the medical records, data, and biological specimens used in the AFHS – also known as the Ranch Hand Study - comprise valuable research material and should be transferred to a new custodial organization that would make the materials available for ongoing research. The report states that in addition to funding maintenance of the assets of the AFHS, Congress should allocate at least $250,000 annually for three years to foster research using the data and specimens. The report was compiled by the Committee on the Disposition of the AFHS Board on Population Health and Public Health Practice, and was sponsored by the Department of Veterans' Affairs. The purpose of the AFHS, which was initiated by the US Air Force in 1979 and is scheduled to conclude later this year, is to evaluate the health, survival and reproductive outcomes of Operation Ranch Hand veterans. Operation Ranch Hand was the unit responsible for the aerial spraying of herbicides over Viet Nam from 1962 to 1971. [See also 8 Jul 05]

27 February In Brussels, the Council of the European Union adopts a *Joint Action in Support of the Biological and Toxin Weapons Convention, in the Framework of the EU Strategy against the Proliferation of Weapons of Mass Destruction* [see also 30 Jan].

Article 1(1) states: "For the purpose of giving immediate and practical application to some elements of the EU Strategy against the Proliferation of Weapons of Mass Destruction, the European Union shall support the BTWC, with the following

objectives: promotion of the universality of the BTWC; support for implementation of the BTWC by the States Parties…"

Article 1(2) states: "The projects corresponding to measures of the EU Strategy are those that aim at: promotion of the universality of the BTWC by carrying out activities, including regional and sub-regional workshops and seminars, aimed at increasing the membership of the BTWC; assistance to States Parties for the national implementation of the BTWC, in order to ensure that States Parties transpose the international obligations of the BTWC into their national legislation and administrative measures." Descriptions of these two projects are set out in an annex to the document.

Article 2(3) states: "The technical implementation of the projects referred to in Article 1(2) shall be entrusted to the Graduate Institute of International Studies, Geneva, which shall perform its tasks under the responsibility of the Presidency and under the control of the [Secretary-General/High Representative for CFSP]."

Article 3(1) states: "The financial reference amount for the two projects listed in Article 1(2) shall be EUR 867,000."

Article 5 states: "This Joint Action shall enter into force on the day of its adoption."

The Council also adopts an *EU Action Plan on Biological and Toxin Weapons* "in addition, and complementary to the measures contained in [the] Joint Action", which "contains two measures to be implemented by EU Member States which do not require EU funding".

The first measure, relating to the "efficient use of CBM", states: "The EU wishes to revitalise interest in and use of CBMs. Increased use of CBMs would increase transparency in implementation of the BTWC… To this end, all EU Member States will ensure the fulfilment of their obligation under the BTWC to file a CBM return each year, beginning with 2006 as a first step. Notably, the EU will ensure that the current nine topics, each of which has its own reporting form, are reported each year by every BTWC State Party of the EU. Submission of CBM's by all EU Member States on a yearly basis would allow the EU to take diplomatic action towards other States Parties to the BTWC to fulfil their obligations under the Convention. EU Member States will furthermore develop thoughts on how best to improve the effectiveness of CBMs in the context of the BTWC and discuss these with other BTWC States Parties."

The second measure, on "investigations of alleged use of BW", states: "The EU wishes to increase the effectiveness of the current UN Secretary General's mechanism for investigating cases of alleged use of (chemical) biological and toxin weapons. This mechanism is well established in legal terms, having received the endorsement of both the General Assembly and the Security Council. Separately the EU believes that the mechanism, which is now 15 years old, should be reviewed and updated as necessary… EU Member States will consider and volunteer expertise to the Secretary General in helping him update the lists of experts and laboratories that he may call on for an investigation. EU Member States will aim to submit information to the UN Secretary-General by the end of December 2006 and review and update this information every two years. EU Member States will keep partners informed of the steps they have taken to implement this action and will work with like-minded UN members to achieve this."

28 February At UN headquarters, Secretary-General Kofi Annan transmits to the Security Council the twenty-fourth [see 29 Nov 05] quarterly report on the activities of UNMOVIC, for the period 1 December 2005 to 28 February 2006. On the summary of the compendium of Iraq's weapons of mass destruction programmes, the report states: "It has now been revised in the light of [the comments of the College of Commissioners during the previous quarter {see 21-22 Nov 05}] and UNMOVIC expects to submit it to the Council shortly. As for the compendium itself, work continues on some issues, while the whole document is being examined for the deletion of proliferation-sensitive information.

March The OPCW Technical Secretariat releases its Annual Report 2004. It states that the number of parties that had declared riot-control agents as at 31 December 2004 was as follows: CS/CB– 93; CN–61; OC–16; CR– 9; DM– 2; Others (which includes ethylbromoacetate, MPA, pelargonic acid vanillylamid, pepper spray, and a mixture of OC and CS) – 6. The report continues to refer to the Russian agent 'VR' as 'VX'.

March The US Department of Defense transmits to Congress its Annual Report on its Chemical and Biological Defense Program [see also Mar 05].

1 March In Udmurtia, the Kambarka chemdemil facility is officially opened. Deputy Secretary of the Federal Agency for Industry Victor Kholstov says: "Russia must scrap 8,000 tons of chemical weapons by April 29, 2007, in compliance with Russia's obligations under the [CWC]. We will launch plants in Kambarka and Maradykovsky, which will scrap 3,000 and 4,000 tons of chemical weapons respectively." According to Head of a Defense Ministry Department for the Destruction of Chemical Weapons Valery Kapashin, Russia paid 63 per cent of the $31 million towards the construction facility, while Germany paid 34 per cent and the European Union 3 per cent. Commenting on the opening of the facility, Alexander Burutin, an advisor to the Kremlin, says: "We can say now with certainty that we will have destroyed all 40,000 tons of chemical weapons by 2012."

Two weeks later, the facility commences the second phase of its operations, having destroyed 28 tons of lewisite since it entered into service [see 1 Dec 05]. ITAR-TASS news agency reports head of the facility's information centre Gennady Knyazev as saying that the second phase of lewisite destruction puts the facility on an "industrial footing". The facility will be able to destroy 360kg of agent per hour; in the course of 2006 it is expected to be able to destroy up to 2,500 tons of lewisite a year.

1 March In Arizona, a man pleads not guilty to a charge of attempting to produce a biological weapon after castor beans were found during a search of his apartment last year, so reports the Associated Press. The police believe that Denys Ray Hughes was working alone and was not part of a terrorist organization. [See also 9 Feb]

2 March The *Times of India* reports that India has signed an agreement with the USA under which it will participate in the Container Security Initiative.

2 March Russia is to receive financial support from the European Union to fund a marine expedition to undertake research of chemical munitions that were dumped in the Baltic Sea following the Second World War, according to Vadim Paka of the Russian Academy of Sciences' Shirshov Oceanic Studies Institute. In an interview with Interfax news agency Paka, who has been appointed as technical director of the project, says: "Scientists from Germany, Belgium, Finland, Denmark, Russia, and Latvia are taking part in this first major international project designed for three years. And although it was officially started last fall, the EU began its financing not

long ago. The money for organizing a marine expedition has been transferred to our institute's bank account… [T]he research vessel [the 'Shelf'] carrying Russian and foreign scientists [which was originally supposed to set sail last autumn] will definitely put to sea in June, and a planned amount of research will be done in the areas of the Baltic where chemical weapons were dumped both in bulk and onboard barges." The first phase will take place off the coast of the Danish island of Bornholm [see 2 May 05 and 12 Jan]; followed by the Gotland Hollow [see 2 May 05 and 12 Jan], in the territorial waters of Latvia; and then the Strait of Skagerrak, in the territorial waters of Sweden.

Four months later, a team of scientists set sail from Kaliningrad. Speaking to ITAR-TASS news agency Paka says: "We will not only examine the area where chemical munitions were dumped over 60 years ago but also analyze its influence on the sea ecological system… No less than 30,000 tonnes of chemical munitions are stored offshore Bornholm, but the actual amount may be even larger." [See also 8 Sep 05]

2 March In Alabama, the Anniston chemdemil facility completes the destruction of its sarin-filled munitions which commenced the day after a district court dismissed an application by environmental and public interest groups for a temporary restraining order to halt operations [see 8 Aug 03]. In total, 142,428 weapons were destroyed, comprising 42,762 M55 rockets and warheads; 16,026 8-inch projectiles; 74,040 105mm projectiles; and 9,600 155mm projectiles, along with two ton containers and 36 vials of sarin [see 17 Jul 05]. During the operation 96,246 gallons of sarin was incinerated. The facility is now preparing to destroy M55 rockets filled with VX nerve agent. The Chemical Materials Agency says that following a 17-week conversion process, the facility is due to undergo a "shakedown period" of up to 720 hours. A trial burn would then be conducted to ensure worker competency and that the process meets state and federal requirements.

5 March The Bangkok *Asian Tribune* quotes an unnamed Burmese police officer as saying: "Now we [Burma] have the most invincible fortress with underground tunnels that lead to the Sino-Burmese border. We also have biological weapons". The officer makes the comment in the context of the proposal by the Burmese government to move the capital from Rangoon to Pyinmana so as to make the capital easier to defend from attack.

5 March *The* (London) *Times* reports newly declassified files as stating that in 1943 Germany attempted to use fishing boats to ferry pathogens, hidden in pens and pencils, from Norway to the Shetland Isles where they were to have been released with the aim of spreading death and panic across the UK. The plot was foiled on 8 January 1943 when officials from the Secret Intelligence Service (MI6) arrested three Norwegian spies trying to come ashore at the port of Lerwick, whom the Germans attempted to send into Britain on a fishing boat as part a 'feeler' mission. Two of the crew were interrogated and one set free to join the Free Norwegian Forces. The third, Arnold Evensen, confessed that the German intelligence office in Norway had assembled fifty fishing boats to carry bacteria to Scotland. He said that if the 'feeler' operation had succeeded spies and collaborators would have been dispatched "equipped with the necessary material for spreading bacteria in this country".

6 March In Bali, Indonesia, the second [see 21-25 Feb 05] Regional Workshop on the BWC takes place, which is jointly organized by the governments of Australia and Indonesia. It focuses on ways of enhancing the effectiveness of the BWC, in particular with regard to the threat of bioterrorism. According to the Australian Department of Defence the workshop will focus on such issues in the context of the Convention's Review Conference at the end of the year.

6 March In the UK House of Commons, in response to a written question addressed to the Defence Secretary regarding past links between the Porton Down Chemical Defence Establishment with both Wouter Basson and Roodeplaat Research Laboratory, near Pretoria, Minister of State for the Armed Forces Adam Ingram says: "There is no record of collaboration between the Ministry of Defence officials and either Wouter Basson or the Roodeplaat Research Laboratory, nor is there any record of contact between Ministry of Defence officials and the Roodeplaat Research Laboratory… In March 1995, there was a visit to the new South African 'Government of National Unity'. The cross-government visit included a scientist form the Chemical Biological Defence Establishment, and provided advice to South Africa on her international treaty obligations under the Biological and Toxin Weapons Convention. Two official meetings involved the South African Surgeon General; as a member of his staff, Wouter Basson was present… During their passage through South Africa in January and March 1992 the Ministry of Defence employees, from what was then the Chemical Defence Establishment at Porton Down, did not visit the Roodeplaat Research Laboratory and were not knowingly introduced to its officials." [See also 16 Jan]

6 March At UN headquarters, at a meeting of the Security Council, Russian and US officials disagree over the future of UNMOVIC, so reports the *New York Sun*. "There needs to be a final accounting" of weapons in Iraq before UNMOVIC ends its work, says Russian Deputy Ambassador to the UN Konstantin Dolgov. Meanwhile the *Sun* quotes Richard Grenell, the spokesman for US Ambassador to the UN John Bolton, as saying: "[The USA is] not sure that UNMOVIC needs to prepare a final report… Now that we have a democratically elected government in Iraq, we may not need to revisit the previous UNMOVIC mandate." It follows a comment by Bolton three months previously that the Security Council should terminate the mandate of UNMOVIC. [See also 8 Jun 05 and 22 Aug 05]

6-15 March In Bogota, Colombia, an advanced training course in emergency response takes place under the OPCW national capacity building project to establish the capability against chemical weapons agents and toxic industrial chemicals (TIC) for the Colombian emergency response organizations. In total, thirty-eight civilian personnel representing the Colombian civil defence, fire service, Red Cross, military, industry and police force participate in the course. The aim of the course is to provide training in the field of tactical team deployment with the purpose of giving more detailed information in potentially contaminated areas. The advanced training course follows on from a five-day basic training course on emergency response that took place under the same project six weeks previously.

6-15 March In Brazil, UNMOVIC conducts its third biological technology training course, the purpose of which is for trainees to develop an understanding of the technologies used in the production of human vaccines and to improve their skills in designing inspection and monitoring regimes for biological production facilities. In total, fifteen experts from fourteen countries on the UNMOVIC roster, and one UNMOVIC staff

member, participate. The two previous courses were also conducted in Brazil. This course is the thirty-fourth UNMOVIC training course

9 March In Washington, DC, a former CIA official says that it is likely that Iraq will be looking for WMD within the next five to ten years as Iraqis live in "a dangerous neighborhood" with rival countries pursuing WMD. During a speech at the Middle East Institute, Paul Pillar, who until last year was in charge of intelligence assessments for the Middle East, says the CIA warned the Bush administration of this possibility before the Iraq invasion [see 20 Mar 03]. He says that the administration never sought strategic assessments from the CIA about Iraq, but rather made its decision to go to war and then "cherry-picked" items from intelligence assessments in an effort to justify the decision to the public.

9-10 March In Glion, Switzerland, the Geneva Forum – being the Quaker UN Office, the UN Institute for Disarmament Research, and the IUHEI Programme for Strategic and International Security Studies – holds a seminar on *Meeting the Challenges of Reviewing the Biological and Toxin Weapons Convention*. The seminar, which is sponsored by the governments of Ireland, the Netherlands and Switzerland, brings together thirty-five representatives of governments, international organizations and non-governmental organizations. Among the themes discussed are: 'Defining "success" in the context of the sixth Review Conference'; 'Lessons learned from the BTWC "New Process"'; 'Addressing the revolution in the life sciences'; 'Exploring possible innovations I: Confidence-Building Measures'; and, 'Exploring possible innovations II: Support for implementation'. Participants conclude that there is scope for further collective action in a number of areas, namely the creation of a new intersessional process to further strengthen the implementation of the BWC; a revised confidence-building process to prevent or reduce the occurrence of ambiguities, doubts and suspicions and in order to improve international cooperation in the field of peaceful biological activities; and more cohesive implementation support for the BWC to help ensure that the initiatives undertaken by parties, both collectively and individually, are effective.

10 March The US Department of Defense releases an 'Instruction' on *Foreign Consequence Management*, which "establishes policy and assigns responsibilities under … foreign consequence management operations in response to a foreign chemical, biological, radiological, nuclear, or high-yield explosive (CBRNE) incident … involving the deliberate or inadvertent release of CBRNE materials, including toxic industrial chemicals and toxic industrial materials".

10 March In New York, at a Carnegie seminar on biodefense at Princeton University, Richard Ebright, a microbiologist at Rutgers University, says that that regulations governing research into biological agents such as anthrax, tularemia and the plague at laboratories involved in biodefence projects are lagging behind other institutions. In this regard he says that "the easiest way for al-Qaeda to obtain bioweapons agents would be to place someone in a US bioweapons institution". However, spokesman for the Centers for Disease Control and Prevention Von Roebuck says: "The safety measures are in place… These programs go through a review."

12 March The US Department of Homeland Security has determined that lax security by private firms at US and foreign ports, and on ships, trucks and trains "would enable unmanifested materials or weapons of mass destruction to be introduced into the supply chain," according to a study due to be completed in the autumn, so reports the Associated Press. The report states: ""Due to the time involved in transit (and) the fact that most vessel crew members are foreigners with limited credentialing and vetting, the containers are vulnerable to intrusion during the ocean voyage… No silver bullet has emerged to render terrorists incapable of introducing WMD into containers."

13 March In the UK House of Lords, Parliamentary Under-Secretary of State Foreign and Commonwealth Office Lord Triesman replies to a series of questions relating to the BWC.

With regard to the establishment of a secretariat for the BWC he says: "[T]he Government are fully committed to strengthening the convention. We are well aware that there is considerable support for the establishment of a scientific advisory panel and a secretariat among some states parties. These are interesting ideas, and we are very ready to discuss them, possibly as part of the follow-on work programme. The UK does not oppose a formal secretariat; our priority at the review conference will be to support proposals that are feasible and add value to the effective implementation of the convention… The United Kingdom and the EU remain ready to support a new verification mechanism as well as new advisory mechanisms. At the moment there are no signs that the international climate has changed enough to permit universal agreement on verification, particularly given the need for the review conference to operate by consensus. We intend that it should be effective. For those reasons it would have to be universally adopted. We would not support the adoption of a verification mechanism that states could opt out of. We still have a good deal of work to do to encourage everybody to opt in… We hope on this occasion that we will also be able to carry forward in an additional paper some work on the responsibilities of scientists. That involves work that is done year by year rather than every five years. I think that, incrementally, that is probably the way we are going to get the job done… [T]he reality is that a number of countries are not prepared to proceed as rapidly as we would all wish on verification. I would rather that that were not true, but it is. However, I think that we can move forward in other areas and use our best endeavours to get the verification arguments going in a climate that is generally improving as some of the other issues, which have appeared to be intractable, are in fact being solved. Negotiation can often be a matter of catching a tide as circumstances become more favourable."

In relation to the destruction by Russia of its "biological weapons stock" Triesman says: "I am not in a position to say what the Russian Federation has done in the destruction of any materials. The federation is of course a co-depository to the convention and, therefore, in our view, has – like us and the United States – special responsibilities. It has continued to make clear its commitment to the convention and has been fully involved and engaged in the intersessional programme that I have just described; we expect it to be fully involved in the review conference. I think that it does not declare the whole of its hand on all occasions in these matters, although we will press it to do so."

13-23 March In Paris, the third [see 3-13 Oct 05] basic course for personnel of CWC national authorities takes place at the French Training Centre for the Prohibition of Chemical Weapons (CEFFIAC). Attending the course, which is organized jointly by the French government and the OPCW, are representatives from the following twenty-eight CWC parties: Armenia, Azerbaijan, Belize, Benin, Burundi, Cambodia, China,

Cote d'Ivoire, Djibouti, Dominica, Equatorial Guinea, Gabon, Ghana, Georgia, Liberia, Libya, Madagascar, Malaysia, Morocco, Nepal, Philippines, Portugal, Senegal, South Africa, Sri Lanka, Tajikistan, Ukraine and Zimbabwe. Representatives from three signatories – the Central African Republic, Comoros and Congo – also participate. The purpose of the course is to assist personnel of national authorities with little or no previous involvement in implementing the Convention.

14 March In Jakarta, during a meeting with US Secretary of State Condoleezza Rice, Indonesian Foreign Secretary Hasan Wirayudha questions a US proposal that Indonesia join the US-led Proliferation Security Initiative (PSI), and adds that the PSI could infringe on Indonesia's sovereignty given the geography of the country. Speaking to journalists following the meeting, he says: "We asked for the location of the initiatives, within the context of multilateral arrangements on weapons of mass destruction… We also questioned the connection between the PSI concept and the [1992] UN Convention of the Law of the Seas [UNCLOS]."

Three days later, at a press briefing, Indonesian Foreign Ministry spokesman Desra Percaya confirms that Indonesia "has firmly rejected" the invitation to join the PSI. The reasons he gives are that it would threaten the country's sovereignty as the USA would then be able to conduct checks on ships passing through Indonesian waters and it would be "carried out not multilaterally but by a group of countries only". He also says that the PSI violates UNCLOS.

14 March *The Washington Post* refers to "excerpts of a recently declassified report by the Pentagon's Joint Forces" as stating that when, in 2002, US intelligence intercepted an internal message between two Iraqi commanders talking about removing the words "nerve agents" from "wireless instructions", the analysts "had no way of knowing that this time the information reflected the regime's attempt to ensure it was in compliance with UN resolutions". Referring to an article in the May/June 2006 issue of the journal *Foreign Affairs*, the *Post* also states that the same situation existed when US intelligence learned of instructions given to the Iraqi military to search "for any chemical agents" in order to "make sure the area is free of chemical containers, and write a report on it". The USA "viewed this information through the prism of a decade of prior deceit" and did not believe it. The article is written by three defence analysts who helped draft the Pentagon report: Kevin Woods, an analyst in Washington, DC; James Lacey, a military analyst for the US Joint Forces Command; and Williamson Murray, a history professor at the US Naval Academy.

14-17 March At OPCW headquarters, the Executive Council convenes for its forty-fourth [see 6-9 Dec 05] session, under the chairmanship of Alfonso Dastis of Spain.

The Council considers and approves the agreed detailed plan for the verification of destruction of chemical weapons at the Pine Bluff binary destruction facility, USA. It also considers and approves the amendments to the agreed detailed plan for the verification of the destruction of chemical weapons at the Anniston chemdemil facility, USA.

The Council considers and approves a decision by the Conference of the States Parties during its eighth session granting Russia, in principle, an extension of the intermediate and final deadlines for the destruction of its Category 1 chemical weapons. The Council recommends that the Conference at its eleventh session set 31 December 2009 as the date for completion of the destruction by Russia of its Category 1 chemical weapons stockpiles.

The Council, further to a request made by an unnamed State Party, considers and adopts a decision recommending to the Conference at its eleventh session that, subject to certain conditions, it grant an extension of the deadline by which such State Party must destroy all of its Category 1 chemical weapons.

The Council receives and notes a report by OPCW Director-General Rogelio Pfirter on progress in implementing the decision on follow-up to the Article VII action plan taken at the tenth Conference of States Parties [see 7-11 Nov 05]. It notes that the number of States Parties that had yet to designate or establish their national authority had decreased to twenty-four and that those that had yet to enact legislation and to adopt administrative measures to implement the Convention had decreased to sixty-eight. The Council requests that the Technical Secretariat continue to offer assistance on request to States Parties that have yet to implement their Article VII obligations, encourages States Parties to continue to offer assistance in implementing the provisions and strongly encourages States Parties that have yet to fulfill their Article VII obligations to exploit any assistance that is offered.

The Council, further to its consideration of the subject during its last two sessions, considers and approves a facility agreement with Japan regarding on-site inspections at an unnamed Schedule 1 facility for protective purposes. It also considers and approves a facility agreement with the USA regarding on-site inspections at the Pine Bluff binary destruction facility.

In accordance with the recommendation of the tenth Conference of States Parties, the Council decides to establish an open-ended working group to begin, in co-operation with the Technical Secretariat, preparations for the second CWC Review Conference. In this regard, it requests the chairperson, after consulting with regional groups, to nominate a facilitator to co-ordinate the activities of the group.

The Council considers and concludes agreements with both Madagascar and Colombia on the privileges and immunities of the OPCW.

Four days later, the Russian Ministry of Foreign Affairs issues a statement relating to the decision of the Executive Council to recommend to the Conference of States Parties that Russia be permitted to complete the third stage of its chemdemil by 31 December 2009. The statement reads thus: "The Russian Federation suggested a deadline of 31 December 2009 and then accompanied this proposal with a detailed explanation and a draft of the pertinent resolution… We welcome the decision of the Executive Council to advise the conference's member-nations to support this deadline… Predicted, coordinated, targeted and effective international support plays a key role… We will continue to work together with foreign states to secure broader support and make the assistance we are receiving in the chemical disarmament area more effective." RIA Novosti quotes an unidentified Ministry spokesman as saying: "We felt the need to take more drastic measures to guarantee the safety of the chemical disarmament process because of terrorist threats and our heightened concern about the environmental aspects of the destruction process."

15 March The Tokyo High Court upholds the death penalty against a senior member of Aum Shinrikyo for the murder of twenty-six people in seven separate attacks, including the sarin attack on the Tokyo subway [see 20 Mar 95]. Tomomitsu Niimi, who was sentenced to hang in June 2002, maintained that the murders were based on his religious beliefs. Judge Kunio Harada says Niimi was a central figure in the cult. "I have to say these are extraordinarily heinous crimes… Even if the defendant believed those were acts based on his religious belief, that wouldn't possibly excuse

him from the death sentence." Niimi gained notoriety at the start of his trial ten years ago by refusing to enter pleas and pledging eternal loyalty to former cult leader Shoko Asahara [see 20 Dec 04]. [See also 7 Apr 05]

15 March In the USA, a research team from the University of Wisconsin-Madison and the University of Texas report in the journal *Science* that they have discovered that botulinum neurotoxin A latches onto a protein known as SV2 to gain entry into neurons like a "Trojan horse". "Knowing the protein receptor for [botulinum toxins] can pave the way for developing anti-toxin reagents which may block the entry of toxins into cells", says lead author Min Dong. The senior author of the report is Edwin Chapman, of the University of Wisconsin-Madison.

16 March In the US Senate, Department of Health and Human Services Secretary Michael Leavitt testifies before the Committee on Health, Education, Labor and Pensions on the subject of *HHS Bioterrorism and Public Health Emergency Preparedness*. His testimony highlights the steps the Department has taken to prepare for the threats of bioterrorism and other possible public health emergencies, including pandemic influenza.

16 March US President George Bush transmits to Congress *The National Security Strategy of the United States of America*, which according to Bush "is founded upon two pillars", one of which involves "confronting the challenges of our time by leading a growing community of democracies" against, amongst other things, the "proliferation of weapons of mass destruction" [see also 18 Mar 05]. The document states:

"To forestall or prevent [hostile acts involving weapons of mass destruction] by our adversaries, the United States will, if necessary, act preemptively in exercising our inherent right of self-defense. The United States will not resort to force in all cases to preempt emerging threats. Our preference is that nonmilitary actions succeed. And no country should ever use preemption as a pretext for aggression… If necessary, however, under long-standing principles of self-defense, we do not rule out the use of force before attacks occur, even if uncertainty remains as to the time and place of the enemy's attack. When the consequences of an attack with WMD are potentially so devastating, we cannot afford to stand idly by as grave dangers materialize. This is the principle and logic of preemption. The place of preemption in our national security strategy remains the same [see also 20 Sep 02 and 12 Jul 04].

"Countering the spread of biological weapons requires a strategy focused on improving our capacity to detect and respond to biological attacks, securing dangerous pathogens, and limiting the spread of materials useful for biological weapons. The United States is working with partner nations and institutions to strengthen global biosurveillance capabilities for early detection of suspicious outbreaks of disease. We have launched new initiatives at home to modernize our public health infrastructure and to encourage industry to speed the development of new classes of vaccines and medical countermeasures. This will also enhance our Nation's ability to respond to pandemic public health threats, such as avian influenza…

"Chemical weapons are a serious proliferation concern and are actively sought by terrorists, including al-Qaida. Much like biological weapons, the threat from chemical weapons increases with advances in technology, improvements in agent development, and ease in acquisition of materials and equipment… To deter and defend against such threats, we work to identify and disrupt terrorist networks that seek chemical weapons capabilities, and seek to deny them access to materials needed to make these weapons. We are improving our detection and other chemical defense capabilities at home and abroad, including ensuring that US military forces and emergency responders are trained and equipped to manage the consequences of a chemical weapons attack."

17 March In London, there is a meeting at Chatham House on *Counter-Proliferation Initiatives: Forging Integrated and International Responses*. US Principal Deputy Assistant Secretary of Defense for Negotiations Policy Department of Defense Guy B Roberts discusses WMD counter-proliferation, interdiction and transportation security initiatives, including activities to implement the Proliferation Security Initiative [see 31 May 03], the SUA Convention Protocol [see 10-14 Oct 05], and UN Security Council resolution 1540 [see 28 Apr 04]. The meeting is organized by the New Security Issues Programme of the Royal Institute of International Affairs.

17 March The US Central Intelligence Agency releases the first batch of official Iraqi documents and transcripts of audio recordings captured by US troops following the US-led invasion of Iraq [see 20 Mar 03]. The move is part of a one-year process of posting up to a million documents, contained in 48,000 boxes, on the Internet, following pressure to do so from Congress.

The Associated Press refers to a transcript of an audio recording – which it determines is likely to be from around 1987 – in which an official identified as "Comrade Husayn" says to Saddam Hussein: "They [UN Security Council] have a bigger problem with the chemical program than the biological program… We have not told them that we used it on Iran, nor have we told them about the size or kind of chemical weapons that we produced, and we have not told them the truth about the imported material… We imported a quantity from America, and we imported a quantity from Europe. However, we did not come forth with the quantities… I must say that it is in our best interest not to uncover it [the quantity], not only in fear of exposing the technology that we have or that we possess or to hide it for future agendas."

Two days later, the Associated Press refers to a memorandum dated 12 March 1987 in which Saddam Hussein ordered plans to be drawn up for a chemical weapons attack on Kurdish guerrilla bases in northern Iraq in 1987. It is one of a series of memoranda that date to about a year before the attack on Halabja [see 18 Mar 88] and concern an area about 120 miles to the north-west of Halabja. The memorandum, which is signed by Hussein's personal secretary, states: "The leader Mr President has ordered that your department study with experts a surprise attack with special ammunition in the areas of Barzani's gangs and the Khomeini Guards." According to the Associated Press, "special ammunition" is the phrase used by the Iraqi administration to refer to chemical weapons. The order reportedly started discussions among military commanders over how best to use the weapons. In one memorandum the military intelligence chief recommended that any attack on the joint Kurdish-Iranian bases be put off until June because snow in the area would reduce the effect of sarin and mustard gas. On 31 March he recommended two alternative targets: Kurdish guerrilla bases near the towns of Balisian and Qaradagh, "considered suitable because they are in a low-lying area, which helps chemical agent sedimentation." In the memorandum he recommended using two-thirds of Iraq's stores of sarin and a third of the stores of mustard gas and said the attack could be executed by mid-April. A message

from the President's office, signed by Saddam Hussein's secretary, approved the strike. Two final memoranda dated 5 and 6 April, from the chief of military intelligence and the then army chief-of-staff Saadeddine Aziz Mustafa, ordered the army's first and fifth corps to draw up plans for the strike within days. According to the Associated Press, there are no documents that confirm the strike was actually carried out, however, it does quote Faiq Mohammed, a Kurdish doctor who accompanied Kurdish guerrillas during the period in question, as saying that on 16 April he witnessed aircraft drop "mustard gas bombs" on Balisian, which resulted in a number of guerillas being wounded. He says that he heard of a similar attack in an area called Balakjar near Qaradagh during the same period.

Four days later, the Associated Press refers to another transcript of a 1996 meeting in which Saddam Hussein says that UN inspectors could: "roam Iraq for 50 years" in a pointless hunt for weapons of mass destruction, and asked: "When is this going to end?".

Eleven days later, *The New York Times* reports that only six hundred documents have been posted on the Internet.

18 March In Washington, DC, administration officials participate in a four-hour exercise that is based around the scenario of a smallpox attack by terrorists. The purpose of the exercise, which is held in the Eisenhower Executive Office Building next to the White House, is to identify gaps in local and state preparedness plans and to fine-tune the federal government's response.

20 March The Thai Disease Control Department (DCD) announces that specialists from the World Health Organization (WHO) and the US Centres for Disease Control and Prevention (CDC) are investigating an outbreak of botulinum poisoning in Ban Luang district, Nan Province. The Thai Army is also on full alert. Since 4 March, 147 people have been diagnosed as having been poisoned, 33 of which are currently breathing with the aid of respirators, after eating preserved bamboo shoots. At a press conference, head of the DCD, Thawat Sundracharn, says: "The CDC is eager to study the […] outbreak in order to strengthen the US preparedness for a biological weapons attack."

Three days later, on the same day that 17 patients in critical condition arrive in Bangkok for further treatment, Thai Health Minister Pinij Charusomb announces that the Thai Public Health Ministry, the Ministry of Science and Technology, and the Phramong-kutklao military hospital are to undertake a study of the bacterium. During a press conference, Pinij says: "With the study, we will know how to make a bio-weapon. That's why I ordered this study. We've got to know how to produce such a bio-weapon to prevent (possible abuse of the bacterium)."

20 March In Kiev, the US Embassy announces the official transfer of $1.89 million of equipment – including night-vision devices, binoculars, global positioning receivers, and radios – by the USA to the State Border Guard Service of Ukraine under the US-Ukraine Cooperative Threat Reduction programme's Weapons of Mass Destruction-Proliferation Prevention Initiative. [See also 29 Aug 05]

20 March In Brussels, the Council of the European Union adopts a *Common Position Relating to the 2006 Review Conference of the Biological and Toxin Weapons Convention (BTWC)* [see also 27 Feb]. It states:

"The European Union continues to work towards identifying effective mechanisms to strengthen and verify compliance with the BTWC. The European Union shall therefore promote a successful outcome of the Sixth Review Conference in 2006… [T]he European Union shall [*inter alia*] contribute to a full review of the operation of the BTWC at the Sixth Review Conference, including the implementation of undertakings of the States Parties under the BTWC… support a further intersessional work programme during the period between the Sixth and Seventh Review Conferences and identify specific areas and procedures for further progress under this work programme…

"[The European Union shall] help build a consensus for a successful outcome of the Sixth Review Conference, on the basis of the framework established by previous such Conferences, and shall: [Promote] universal accession of all States to the BTWC… [Promote] full compliance with the obligations under the BTWC and effective implementation by all States Parties… [Promote the] strengthening, where necessary, national implementation measures, including penal legislation, and control over pathogenic micro-organisms and toxins in the framework of the BTWC… [Work] towards identifying effective mechanisms to strengthen and verify compliance within the BTWC… [Promote] efforts to enhance transparency through the increased exchange of information among States Parties, including through the annual information exchange among the States Parties to the Convention (Confidence Building Measures (CBM)), identifying measures to assess and enhance the country coverage and the usefulness of the CBM mechanism, and exploring the relevance of any possible enhancement of its scope… [Promote] compliance with obligations under United Nations Security Council Resolution 1540 [see 28 Apr 04]… [Promote] the G8 Global Partnership programmes targeted at support for disarmament, control and security of sensitive materials, facilities, and expertise… [Promote] consideration of, and decisions on further action on, the work undertaken to date under the intersessional programme during the period 2003 to 2005…"

20 March From the USA, NBC quotes "sources" speaking on condition of anonymity as saying that during the period leading up to the US-led invasion of Iraq [see 20 Mar 03], the US Central Intelligence Agency (CIA) had, for a short time, acquired information on Iraq's WMD capabilities from former Iraqi Foreign Minister Naji Sabri. NBC quotes the sources as saying that the French intelligence service brokered a meeting between CIA officials and Sabri after Sabri had spoken at a meeting of the UN General Assembly in New York in September 2002. CIA officers met with a "cutout", i.e. an intermediary, who represented Sabri in a New York hotel. The CIA, via the intermediary, paid Sabri more than $100,000 "good-faith money" in return for relaying information about Iraq's actual WMD capabilities. Contrary to the CIA's assertion that Iraq had stockpiled as much as "500 metric tons of chemical warfare agents" and had "renewed" production of them, Sabri said that Iraq had stockpiled weapons and had "poison gas" left over from the first Gulf War. The sources say that the relationship ended when Sabri repeatedly refused CIA requests to defect to the USA. The CIA hoped that after defecting, Sabri would leave Iraq and publicly renounce Saddam Hussein. NBC surmises that Sabri was the "source" that Director of Central Intelligence George Tenet referred to two years ago during his speech at Georgetown University, Washington, DC [see 5 Feb 04].

Two days later, speaking with Agence France-Presse, Sabri denies the allegation thus: "The information carried by the American channel NBC are lies, totally fabricated and unfounded… After the lies about the weapons of mass destruction which do not exist and the alleged links with al-

Qaeda, it seems that this new lie is aimed at giving a new fake pretext to justify the crime of the century: the invasion of Iraq."

21 March In Paris, testifying before a hearing of the National Assembly Defence Commission, Health Minister Xavier Bertrand says that France has "65 million days' worth of preventive antibiotic treatment; a million days' worth of remedial treatment against plague, tularaemia and anthrax; 72 million smallpox vaccines", stored at thirteen hospitals throughout the country. He also says that France has ten thousand sets of protective clothing for health staff available at emergency centres.

23 March In the USA, a team of researchers from the Army Medical Research Institute of Chemical Defense publish the results of their assessment of the effects of repeated low-dose exposure of guinea pigs to sarin. Writing in the journal *Toxicology and Applied Pharmacology* they present their findings thus: "No guinea pig receiving 0.3, 0.4 or 0.5 x LD50 of sarin showed signs of cortical [electroencephalographic] seizures […] while seizures were evident in animals receiving 0.6 x LD50… Animals receiving 0.5 x LD50 sarin showed obvious signs of cholinergic toxicity […] and there was a significant increase in the angle of gait in the animals that lived… [T]he guinea pigs receiving the 0.4 and 0.5 x LD50 doses of sarin failed to habituate to some aspects of neurobehavioral testing… [While electroencephalographic] changes returned to relative normalcy 6 days after the last injection in animals receiving 0.4 x LD50 sarin, these changes were still observed in the animals that received 0.5 × LD50 sarin… No evidence of brain or heart pathology was found in any guinea pig that survived all 10 sarin injections."

24 March The Turkish Ministry of the Interior denies that security forces used "chemical weapons" in the town of Solhan during operations in which fourteen "terrorists" were killed. The Anatolia news agency reports "ministry executives" as saying "claims that chemical weapons were used in the operation are totally baseless… The terrorist organization and their supporters have been making such illogical and unreal claims recently [see 9 Jul 05]. The operation aimed to ensure peace and security of our citizens, and was accomplished successfully."

24 March In London, the Old Bailey hears that one of the seven persons who were recently found not guilty of having planned attacks with ricin [see 8 Apr 05] suggested, amongst other things, poisoning football supporters by selling spiked drinks at matches. According to Mohammed Babar, Waheed Mahmood also talked about delivering contaminated takeaways and claimed he had actually sold poisoned burgers from a van somewhere in the UK. Babar says that Mahmood first raised the poison plots during discussions with him and two of the other defendants, Anthony Garcia and Salahuddin Amin at a house in Juja Khan, Pakistan, in February 2003. Babar, a Pakistan-born American, has previously pleaded guilty in the USA for terror-related offences and has been granted immunity from prosecution in the UK in return for testifying at the Old Bailey. Babar, who says he first came face-to-face with Mahmood in April or May 2002, quotes Mahmood as saying: "[Y]ou could get mobile vending carts – all those vans going round selling burgers. He said he had done it. I didn't believe it. He said you could stand on street corners selling poison burgers and then just leave the area." He said they could get jobs as barmen at soccer stadiums and use syringes to poison cans of beer. Mahmood had also suggested distributing leaflets from a bogus takeaway restaurant. Babar says: "[Mahmood said] you would just have a phone number where they could call up and order food… What you could do is poison the food like that when they call for a takeout." Babar also says that he had stockpiled weaponry and ingredients to make ricin. According to Reuters news agency, Babar says he had kept the material at his home in Lahore, Pakistan, with the intention of smuggling it into the UK. He is reported as saying that the castor beans had originated in Islamabad.

24 March The US Marine Corps Chairman of the Joint Chiefs of Staff Peter Pace releases *National Military Strategy to Combat Weapons of Mass Destruction* [see also 5 Feb], according to which the USA will seek to convince adversaries that they "will suffer severe consequences" if they consider the WMD option. The report, dated 13 February 2006 and endorsed by Defense Secretary Donald Rumsfeld, "presents the comprehensive coherent guidance needed to succeed while executing the US military WMD-related nonproliferation, counterproliferation, and consequence-management missions". It concludes: "To ensure that the United States, its Armed Forces, allies, partners, and interests are neither threatened nor attacked by WMD, US Armed Forces must be prepared to: defeat and deter WMD use and deter next use; protect from, respond to, and recover from WMD use; prevent, dissuade, or deny WMD proliferation or possession; and reduce, eliminate or reverse WMD possession. We will accomplish these [Military Strategic Objectives] through eight combating WMD missions [offensive operations, elimination, interdiction, active defense, passive defense, WMD consequence management, security cooperation and partner activities, and threat reduction cooperation], all of which are supported by the strategic enablers [intelligence, partnership capacity, and strategic communication support]."

24 March The US Department of Defense (DoD) releases a report assessing the DoD's reaction to three suspected anthrax incidents last year [see 14 Mar 05], which concludes that it followed correct procedures, but needs to improve notification and coordination. The report, by the RAND Corporation, focuses on the mailroom incidents at the Pentagon, the Skyline Towers in Fairfax County, Virginia, and the Defense Intelligence Agency at Bolling Air Force Base, Washington, DC. Director of Administration and Management for the Office of the Secretary of Defense Michael Donley says that to address the deficiencies identified in the report the DoD is drafting an instruction that will include guidelines on notification procedures and incident command. The incident command concept will include operations, logistics, public affairs and communications.

26 March At OPCW headquarters, inspectors and verification experts from the Technical Secretariat depart for the Lagerlechfeld military airbase, near Augsburg, Germany, to undertake a mock challenge-inspection. The German government organizes the six-day exercise.

27 March In Tokyo, the High Court rejects an appeal by the former leader of Aum Shinrikyo against the death penalty on the grounds that it was not submitted before the deadline of 31 August 2005. Chizuo Matsumoto, also known as Shoko Asahara, was sentenced to death two years ago [see 27 Feb 04] for masterminding a number of incidents, including an attack using sarin gas in Matsumoto [see 28 Jun 1994] and on the Tokyo subway [see 20 Mar 95].

Three days later, lawyers for Matsumoto file an appeal against the decision claiming that the appeal against the death

penalty was filed late because they were unable to communicate with their client as his responses to questions were unintelligible. One month previously, a court-ordered psychiatric assessment concluded that Matsumoto was faking mental illness. [See also 15 Mar]

27 March The US Supreme Court refuses a request by *The New York Times* to dismiss a defamation suit filed by Steven Hatfill in which Hatfill claimed that *Times* columnist Nicholas Kristof had defamed him by writing that the FBI had failed to thoroughly investigate him for the 2001 anthrax letters [see 15 Oct 01]. Previously, the fourth Circuit Court of Appeals had reinstated the case [see 18 Oct 05] after a federal court had dismissed it. The case will now return to a federal court in Alexandria, Virginia.

27-29 March In Singapore, there is an *Interpol Asian Regional Workshop on Preventing Bioterrorism*, which brings together 78 participants from 27 countries in the Asian region, including police chiefs, and scientific, legal and academic experts [see also 21-23 Nov 05]. In his speech on the opening day, Interpol Secretary General Ron Noble says: "It is […] becoming ever more possible for terrorists themselves to produce [biological] weapons, as the volume and sophistication of the necessary information becomes increasingly accessible through publications, the Internet and other sources… And there is much evidence that terrorists have a strong interest in the use of biological weapons and are planning to use them." Delegates acknowledge the importance of enhanced partnerships and co-ordination between police, health and other appropriate agencies locally, nationally and internationally to: share information for regular threat and risk assessments to be made; ensure preparedness in terms of establishing appropriate national legislation, inter-agency protocols, joint working procedures, early warning systems, equipment and regular training; enable the implementation of the necessary measures to prevent, respond to and investigate bioterrorism. In order to achieve these goals, each country is requested to identify an individual in their respective Interpol National Central Bureau and police service who would be responsible for maintaining contact with the Interpol General Secretariat on bioterrorism issues and to establish a direct link with the appropriate persons in their national health authorities.

27 March-6April In Madrid, there is the second [see 8-12 Nov 04] *Assistance and Protection Course for Latin American and Caribbean States Parties*, which is jointly organized by the government of Spain and the OPCW. Participating in the course are representatives from the following CWC parties: Mexico, El Salvador, Colombia, Dominica, Uruguay, Argentina, Brazil, Costa Rica, Peru, Venezuela, Nicaragua, Honduras and Paraguay. The aim of the course is to provide training in planning and building a support team in civil protection, civil defence, and rescue operations in contaminated areas, as well as in appropriate responses and countermeasures in the event of incidents involving chemical-warfare agents. The role of national authorities and the status of implementation of Article X and previous exercises such as ASSISTEX (Croatia) [see 10-14 Sep 02] and Joint Assistance (Ukraine) [see 9-13 Oct 05] and other mock exercises are also reviewed.

28 March In Brussels, the European Association for Bio-Industries (EuropaBio) launches a European Bio-Defence Task Force. EuropaBio Secretary-General Johan Vanhemelrijck says the aim of the Task Force will be to heighten awareness among the officials of European institutions in order to promote the interests of the bio-industry by keeping them informed of the legislation and promoting research and development investment in the bio-defence sector. During the launch of the Task Force several representatives from the industrial sector present technology to counter and detect biological weapons.

28 March The UK Department of Trade and Industry releases *The Operation of the WMD End-Use Control: Guidance*, which provides general information on complying with dual-use control lists. The document states: "The Government is determined to ensure that UK exporters will not contribute knowingly or unwittingly to WMD programmes of concern, while also minimising the burden on legitimate trade… The WMD end-use control can in theory be applied to any export to any end-user involved in WMD in any country outside the EC [*sic*]. In practice we apply it sparingly." Annex C states that the DTI refused to grant export licences on end-use grounds since 2002 for the following: biotechnology equipment, chemical agent detection equipment, electrical switching equipment, environmental test equipment, filtration equipment, and a chemical processing pilot plant. Annex D states: "Given the current concerns about Iran in particular, we feel it would be useful to provide more specific information about end-users in that country. In this context, we are making the attached list of Iranian entities publicly available for the information of exporters." In total forty-three entities are named.

28 March In Washington, DC, the Center for Nonproliferation Studies hosts a seminar on the *Threat Agent Detection and Response (TADR) Project in Central Asia and Caucasus*. Scott Levac, from the Defense Threat Reduction Agency, states the main objectives of the TADR Project as being to combat the threat of bioterrorism and prevent the proliferation of biological weapons technology. He says that for FY 2006 funding for the project – which is currently in various stages of implementation in Azerbaijan, Georgia, Kazakhstan, Ukraine, and Uzbekistan – is approximately $60 million with $400 million earmarked for the next five years.

28-29 March In Ha Noi, there is an *International Conference on Agent Orange/Dioxin Victims*. In his speech, Deputy President of the Vietnam Association of Victims of Agent Orange Nguyen Trong Nhan says: "At this conference, we would like to emphasise the harmful effects of dioxin on human health. The most recent list of dioxin-related diseases is far longer than the lists published by the American Academy of Science and the American Medical Institute in 1994 and 1996."

29 March In the US Senate, the Armed Services Subcommittee on Emerging Threats and Capabilities holds a hearing on *US Nonproliferation Strategy and the Roles and Missions of the Defense Department and the Energy Department in Nonproliferation in Review of the Fiscal Year 2007 Defense Budget*. Testifying before the Subcommittee are: Assistant Secretary of Defense for International Security Policy Peter Flory; Commander, US Strategic Command James Cartwright; and Principal Deputy Administrator, National Nuclear Security Administration, Energy Department Jerry Paul. Undersecretary of State for Arms Control and International Security Robert G Joseph is unable to testify in person, but submits a written testimony.

30 March In Washington, DC, Director of Defense Threat Reduction Agency (DTRA), Department of Defense James Tegnelia says the USA is considering a Libyan request to destroy its chemical weapons stockpile. Speaking to reporters, he says that a team from the DTRA has just returned from a fact-finding mission to Libya to assess the size

and condition of its chemical weapons stockpiles and what it would take to destroy them. Tegnelia says that destroying Libya's stockpile of mustard gas in addition to precursor chemicals stored at a single site "would be a difficult thing, because it's in the middle of the desert, at [60 degrees Celsius] during summer", and a lack of water and limited road access to the remote site are also complicating factors. "In round numbers, the destruction of the Libyan chemical weapons capabilities is going to be $100m", he says, adding that defence officials had to decide what, if anything, they were prepared to do to help with Libyan chemdemil and whether $100m could be better spent in other areas, such as securing Russia's arsenal of tactical nuclear weapons. "In the end", says Tegnelia, "meeting the Chemical Weapons Convention responsibility is the Libyan government's responsibility… In today's world, it's not like they don't have resources to be able to do that."

30 March US District Judge Leonie Brinkema directs a jury that, in considering whether a conspirator in the 11 September 2001 terrorist attacks should receive the death penalty, they should regard aeroplanes used as missiles as constituting weapons of mass destruction. Zacarias Moussaoui has recently been convicted of three crimes including conspiracy to use weapons of mass destruction.

31 March At OPCW headquarters, the sixth [see 12 Sep 05] OPCW inspector-training course, which lasted eleven weeks, concludes. The course was completed by fifteen inspector trainees from Australia, Canada, China, Ireland, New Zealand, Poland, Serbia and Montenegro, Thailand, the UK and the USA, who join the OPCW team which now totals over 180 inspectors.

31 March *The New York Times* reports that during a meeting on 31 January 2003 US President George Bush told UK Prime Minister Tony Blair that his plans for invading Iraq would not be stopped by the lack of a second UN resolution, according to a memorandum by Blair's then chief foreign policy adviser, David Manning. Regarding the discussion between Bush and Blair and six leading aides, Manning wrote: "Our diplomatic strategy had to be arranged around the military planning… The start date for the military campaign was not penciled in for 10 March… That was when the bombing would begin… The US was thinking of flying U2 reconnaissance aircraft with fighter cover over Iraq, painted in UN colors… If Saddam fired on them, he would be in breach." Manning also wrote that Bush had said that the "US might be able to bring out a defector who would give a public presentation about Saddam's WMD [see 20 Mar]". Another option would be to assassinate Saddam Hussein, Bush is noted as saying.

3-7 April In Spiez, Switzerland, the third *Swiss Emergency-Field-Training Advanced Course (SEF-TRAD III)* takes place at the Nuclear, Biological and Chemical (NBC) Training Centre. The course, which is being jointly organized by the government of Switzerland and the OPCW, is made possible as a result of an offer made by the former under Article X of the CWC. It provides training on the use of individual protective equipment, in techniques used for monitoring, detection, and decontamination, and in sampling-and-detection methods used by a mobile field laboratory during field exercises. Two separate training exercises are enacted, the scenarios of which involve terrorist attacks with chemical weapons.

3-30 April In Utah, at Dugway Proving Ground (DPG), the Army conducts tests for a mobile detector system – the Joint Services Lightweight Nuclear Biological Chemical Reconnaissance System (JSLNBCRS) – designed to alert soldiers if they are under chemical, biological or radiological attack. Two months previously, DPG released a draft environmental assessment for the tests planned and found they would have "no significant impact" on people or the environment. The tests include measuring how well the JSLNBCRS can respond to such attacks if delivered by Scud missiles, artillery barrages or improvised explosive devices. Up to 30,000 pounds of explosives will be used in the tests, along with 28,500 litres of chemical and biological weapons simulants. DPG says that tests are designed to challenge the detector "with real-world threat scenarios using realistically delivered chemical warfare agent simulants and agent of biological origin simulants".

4 April In Baghdad, the Iraqi special tribunal files genocide charges against former Iraqi President Saddam Hussein and six others, including Ali Hassan al-Majid – also known as Chemical Ali – in relation to the Anfal campaign in the 1980s, which included the chemical attack on Halabja [see 18 Mar 88]. Investigative judge Raid Juhi said the charges against Saddam and the others had been filed with another judge, who will review the evidence and order a trial date. Others indicted under the charge include former Defence Minister Sultan Hashim Ahmad; former intelligence chief Saber Abdul Aziz al-Douri; former Republican Guard commander Hussein al-Tirkiti; former Nineveh provincial Governor Taher Tafwiq al-Ani; and former top military commander Farhan Mutlaq al-Jubouri.

4-6 April At Darwin International Airport, Australia, *Exercise Pacific Protector 06* – a multinational Proliferation Security Initiative (PSI) – takes place. Six countries participate in the exercise, with representatives from thirty-two countries and observers from an additional twenty-six countries attending. The scenario involves a team of police and customs officials removing passengers from an aircraft suspected of carrying terrorists armed with WMD, searching the plane and checking passengers and cargoes for any WMD-related matériel.

5 April In Qingdao City, China, a team from the Chinese navy conducts an exercise that involves responding to an incident of use of chemical weapons. Qingdao City is the site of the 2008 Olympic sailing competition. The team has been conducting such exercises for the last six months to prepare for the Games.

5 April The US Department of Commerce Bureau of Industry and Security (BIS) releases its FY 2005 annual report, which summarizes the activities of the BIS during the period 1 October 2004 to 30 September 2005. Regarding international regimes and treaty compliance, it states: "[T]he US expanded AG controls on dual-use chemical and biological equipment to all destinations except to AG partners. This measure was taken to conform with guidelines requiring that exports of AG-listed commodities be controlled to all destinations except those determined to have proven nonproliferation credentials [see 5 Aug 05]… BIS received and verified 784 [CWC] declarations and reports from 618 plant sites. Of this number, 757 were forwarded to the OPCW TS, 16 were maintained for internal information purposes, and 11 were returned without action. BIS also hosted nine on-site inspections of US facilities engaged in chemical-related activities. In addition, in response to requests from US companies, BIS conducted 12 site assistance visits (SAVs) to assist industry in the preparation for OPCW TS inspections, and provide advice on methods for identifying and protecting confidential business and national security information… BIS worked with

the Government of Romania to develop outreach materials to assist [CWC] States Parties that have not yet done so to adopt national measures to fully implement the provisions of the CWC. This Implementation Assistance Programme (IAP) provides States Parties requesting assistance with electronic and hard-copy materials focusing on the implementation of a national CWC program. The IAP was distributed to more than 100 States Parties and presented to 14 States Parties in South America, Asia, and Africa… BIS took an active role in strengthening international cooperation with BWC principles and implementation efforts, with a focus on promoting common understanding and effective action on the content, promulgation, and adoption of codes of conduct for scientists."

6 April In the US House of Representatives, the Energy and Commerce Subcommittee on Health holds a hearing on *Project Bioshield Reauthorization*. Responding to questions from the Committee, Deputy Secretary at the Department of Health and Human Services Alex M Azar says: "We recognize that more can and must be done to aggressively and efficiently implement Project BioShield… We will make this process more transparent and work to educate the public and industry about our priorities and opportunities."

6 April In Washington, DC, Acting Assistant Secretary of State for International Security and Nonproliferation Stephen Rademaker speaks to the National Defense University on *Countering WMD and Terrorism Through Security Cooperation*. "If terrorists acquire weapons of mass destruction, we have to assume they will employ them, with potentially catastrophic effects", says Rademaker.

6 April In Arkansas, Pine Bluff Arsenal completes the chemdemil of its binary chemical precursor methylphosphonic difluoride (DF). According to the Associated Press, "254,000 pounds" of the precursor was destroyed since the process started in December 2005. The facility will now prepare for the destruction of the binary precursor chemical diisopropylaminoethyl methylphosphonite (QL) during June and July, after which the destruction of all US binary precursors will be completed.

6 April In the USA, the American Type Culture Collection (ATCC) Expert Panel on the Development of Standards for Biodefense convenes to discuss standards within the biodefence community. Following the meeting, Chairman of the session Joseph Perrone, VP for Standards and Certification at ATCC, says: "This meeting had profound importance to the effort toward biodefense standards because it provided a common launching point and to a large extent mapped the way forward for members of the various stakeholder communities… Discussion during this meeting went a long way toward determining how standards should be developed for organizations involved in the development, authentication, storage, handling and transfer of materials used in biodefense R&D."

The ATCC describes itself as "a global nonprofit bioresource center that provides biological products, technical services, and educational programs to private industry, government, and academic organizations around the world". It states that its mission is "to acquire, authenticate, preserve, develop, and distribute biological materials, information, technology, intellectual property, and standards for the advancement, validation, and application of scientific knowledge".

7 April The *Moskovsky Komsomolets* runs an interview with Peter Nikolayevich Burgasov, the "principal public health official of the USSR", who claims that "the [Sverdlovsk] anthrax epidemic was a diversion" [see also 30 Apr 98]. Burgasov is quoted as saying: "[O]n 6 April arrives a telegram from Sverdlovsk about the causes of sudden death. After the 10th death, we established a diagnosis. But already on 4 April the 'Voice of America' broadcasts that in Sverdlovsk – an epidemic of anthrax has occurred and that naturally the government officials are to blame for it. In the closest town, not of one [*sic*] case of infection was registered. Then finally, corpses were revealed in the secret laboratory. Later, it was found that four strains of anthrax – two of which they are encountered only in Canada, were found. The other two were found only in the Republic of South Africa. To me this means that someone dispersed these agents around Sverdlovsk over the course of one-and-a-half months… Everyone around me was sure that infected beef was the cause, but I knew that this not so, because during cooking the agent is destroyed. And nevertheless to Boris Yeltsin – who was then the 1st secretary of the regional committee – I said: yes, the epidemic is because of the meat. But I knew that people working in the market were all living and healthy." He says he put this theory forward to divert suspicions from his colleagues.

9-12 April In Chicago, the annual convention of the Biotechnology Industry Organization, BIO 2006, takes place [see also 6-9 Jun 04]. More than fifty leading scientists and biotechnology industry representatives from Russia, Ukraine, Kazakhstan, Georgia, Azerbaijan and Uzbekistan attend the conference, which is sponsored by the US State Department and takes place under the BioIndustry Initiative (BII) [see 15 Sep 03]. The Science and Technology Center of Ukraine and the International Science and Technology Center in Moscow have contributed to organizing the event.

10 April Russia publishes a list of 51 countries and 1,152 organizations suspected of involvement in WMD proliferation. Defense Minister Sergei Ivanov says: "This is not a blacklist. This is a list of organizations, with which [...] we need to be particularly circumspect and cautious… All civilized countries establish such a list."

10 April In Wiltshire, UK, Defence Secretary John Reid officially opens the new Counter-Terrorism Science and Technology Centre at Porton Down. The purpose of the Centre, which will employ fifteen scientists, is to co-ordinate scientific countermeasures to terrorist attacks, which could include the development of devices to identify traces of chemical or biological agents in the air and the development of remote-controlled chemical agent detectors. Director of the Centre Ken Brigden says: "This centre will be staffed by the very best MoD, academic and industry counter-terrorist technical experts with cutting edge expertise in chemical, biological, radiological, nuclear and explosive threats… Terrorist threats evolve rapidly so the centre will respond, not just to current threats but also anticipate threats as they emerge and develop."

10 April In Washington, DC, during a speech President George Bush explains why, nearly three years ago, his administration released extracts of the classified National Intelligence Estimate (NIE) [see 1 Oct 02] relating to Iraq's alleged WMD programme [see 18 Jul 03]. "I wanted people to see what some of those statements were based on… I wanted people to see the truth. I thought it made sense for people to see the truth. That's why I declassified the document." Bush refuses to comment on allegations that he authorized Vice-President Dick Cheney's former aide I. Lewis Libby to leak the contents of the NIE to reporters. Libby is currently facing accusations of obstructing justice and perjury in an investiga-

tion into the leaking of the name of Valerie Plame, a former officer with the Central Intelligence Agency.

10 April US Defense Secretary Donald Rumsfeld says in a letter to the chairmen of the House and Senate Armed Services committees that only two-thirds of US chemical weapon stockpiles would be destroyed by 2012, so reports the Associated Press.

Seven days later, Global Security Newswire (GSN) quotes an unidentified "State Department official" as saying that the USA does not envisage completing its chemdemil operations before 2017. The "Defense Department official" is reported as denying that the agencies are "coming clean" about failing to meet the 2012 deadline. "This is based on assessments that have been under way for quite a while and have been recently concluded… The secretary is being transparent about the results with both the Congress and the international community." According to GSN, as of 31 March 2006 the USA had completed the destruction of 10,103 metric tons of chemical agent, roughly 36 percent of the 27,768-ton stockpile of mustard, VX and other materials.

Nine days later, at OPCW headquarters, US Permanent Representative to the OPCW Eric Javits submits a request to the Executive Council that the USA chemdemil deadline be put back to 29 April 2012.. The next day, at an informal meeting of delegates, Javits says: "As you all know, the United States is requesting that our final chemical weapons destruction deadline, which was extended 'in principle' two and a half years ago, be set at April 29, 2012, the latest date allowable under the Chemical Weapons Convention. Yesterday, I submitted our formal request to Chairman Dastis and Director-General Pfirter… It has taken longer than anticipated to build facilities and to obtain the necessary permits and consent to begin destruction of chemical weapons, and we have found that, once operating, our facilities have not destroyed weapons as rapidly as we initially projected. By late 2002, it was clear to us that we would need to request an extension of our 45% deadline – which was extended to December 2007 – and also our 100% deadline. At that time, however, we did not believe that we had sufficient information to project a date for complete destruction of our stockpile. Since then, we have continued to encounter delays and difficulties…We are asking for April 29, 2012 as our extended deadline because that is the latest date the treaty allows us to ask for. Based on our current projections, we do not expect to be able to meet that deadline… To date, we have not identified any option that would allow us to complete destruction by April 2012. But we will continue to seek opportunities to improve our progress, with the goal of reaching the 2012 deadline, or, if that is not possible, completing destruction as soon as feasible thereafter."

Following Javits' remarks, Deputy Assistant Secretary of the Army for the Elimination of Chemical Weapons Dale Ormond presents a fact sheet issued by the Bureau of International Security and Nonproliferation regarding the current status of US chemdemil. It states:

"As of March 31, 2006 the US has destroyed 10,103 metric tons of chemical agent since Entry-into-Force of the CWC, or 36.4% of its declared inventory of 27,768 metric tons…

"Johnston Atoll Chemical Agent Disposal System has completed operations, destroying 640 metric tons of agents by November 2000...

"Hawthorne (NV) has completed destruction of 458 metric tons of binary precursor chemicals contained in canisters in projectiles in July 1999.

"Aberdeen (MD) Chemical Agent Disposal Facility (ABCDF) has completed operations, destroying 1,472 metric tons of agent by February 2006. This facility used neutralization followed by bio-treatment to destroy mustard agent (HD) drained from ton containers.

"Anniston (AL) Chemical Agent Disposal Facility (ANCDF) began operations in August 2003, and has destroyed by incineration all 397 metric tons of GB, with 1,648 metric tons of other agents remaining. Start-up was delayed 7 months to implement additional community emergency preparedness. Currently inactive while preparing for destruction of VX.

"Blue Grass (KY) Chemical Agent Disposal Pilot Plant (BGCAPP) is currently in the design phase, with 475 metric tons to be destroyed. Will use neutralization, followed by supercritical water oxidation, to destroy GB, VX, and HD. Projected to start in 2011.

"Newport (IN) Chemical Agent Disposal Facility (NECDF) began operations in May 2005 to neutralize bulk nerve agent (VX) totaling 1,152 metric tons. Resulting hydrolysate is currently stored in intermodal containers awaiting a decision on off-site treatment/disposal.

"Pine Bluff (AR) Binary Destruction Facility (PBBDF) began operations in December 2005 to destroy DF and QL stocks totaling 161 metric tons. Using neutralization, followed by wet air oxidation, will destroy binary stocks by the end of 2007. Pine Bluff (AR) Chemical Agent Disposal Facility (PBCDF) began operations in March 2005, and has destroyed 166 metric tons of GB using incineration, with 3,327 metric tons remaining. Currently inactive undergoing maintenance, expected to resume by 15 May.

"Pueblo (CO) Chemical Agent Disposal Pilot Plant (PCAPP) is currently in the design phase, with 2,371 metric tons to be destroyed. Will use neutralization followed by biotreatment to destroy mustard agent. Projected to start in 2011.

"Tooele (UT) Chemical Agent Disposal Facility (TOCDF) began operations in August 1996, and has destroyed 6,489 metric tons of CW since EIF using incineration, including all GB and VX, with 5,632 metric tons remaining. Facility was shut down 8 months to implement a new safety plan following an incident of worker exposure to a minute amount of agent. Currently inactive preparing for destruction of mustard agent. Contamination of some mustard stocks with mercury raises complications.

"Umatilla (OR) Chemical Agent Disposal Facility (UMCDF) began operations in September 2004, and has destroyed 478 metric tons of GB stocks using incineration, with 2,896 metric tons remaining. Encountering delays as a result of repeated fires in the explosive containment rooms during the rocket shearing process."

Two weeks later, in an interview with the Department of State publication *Washington File*, Under-Secretary of State for Arms Control and International Security Affairs Robert Joseph says the delay in destruction has been the result of environmental and budgetary issues and the contribution of state and local politics.

10 April In the USA, former Texas Tech University professor Thomas Butler files an appeal with the Supreme Court against his conviction on forty-seven of sixty-nine charges primarily relating to contract related crimes including theft, fraud, embezzlement, mail fraud and wire fraud [see 10 Mar 04]. The charges stemmed from a federal investigation after Butler reported that thirty vials of plague-causing bacteria were missing from the university [see 15 Jan 03]. Butler, whose conviction was upheld late last year by a fifth Circuit Court of Appeal [see 25 Oct 05], recently completed a two-year prison sentence [see 2 Jan].

Six weeks later, the Supreme Court rejects Butler's application to appeal without providing any reasons therefor. The

journal *Science* reports that Butler and his supporters "are hoping against hope for a presidential pardon, if not from George W. Bush then possibly from his successor".

11 April In Strasice, Czech Republic, the 31st Liberec-based chemical warfare brigade and the Texas National Guard conclude a two-week joint exercise, 'Clean Valley 2006', at the Bahna training ground. Spokesman for the 31st brigade Karel Navratil says: "The goal of the exercise was to exchange experience. They offered the experience of mass evacuation and emergency logistics and we have experience with the means of protection against chemical, biological and radioactive substances." According to CTK news agency, cooperation between the Czech military and the Texas National Guard started two years ago.

11 April In Strasbourg, the Parliamentary Assembly of the Council of Europe (PACE) passes a resolution to address ecological threats from chemical munitions dumped in the Baltic Sea at the end of the Second World War. According to *The Baltic Times*, though this year the resolution was a policy priority for PACE in the sphere of environmental protection, in mid-March, PACE failed, for the fourth time, to reach a decision on the matter. The sponsor of the resolution, Lithuanian PACE member Gediminas Jakavonis, says the delay was due to the economic interests of Russia and Germany who are building a gas pipeline on the bottom of the Baltic Sea [see 12 Jan 06].

11 April In New York, there is seminar on *Approaches to National Legislation for NBC Treaties, Norms and UN Security Council Resolutions*, which is organized by the Verification Research, Training and Information Centre (VERTIC), London. Speaking at the seminar are: Volker Beck, a member of the 1540 Committee; Angela Woodward, Deputy Director of VERTIC; and Andreas Persbo, a nuclear researcher at VERTIC.

12 April *The Washington Post* reports that a secret Defense Intelligence Agency (DIA) fact-finding mission to Iraq had notified Washington that two trailers were not mobile biological laboratories a day before the Central Intelligence Agency (CIA) released an assessment to the contrary [see 28 May 03], and two days before President George Bush publicly proclaimed the existence of the trailers as justifying the invasion of Iraq. The three-page field report, and a 122-page a *Final Technical Engineering Exploitation Report on Iraqi Suspected Biological Weapons-Associated Trailers* finalized three weeks later, were stamped "secret" and shelved. According to *The Post*, by the end of the first day of the mission on 25 May 2003, the team of nine US and UK experts – who agreed to be interviewed on condition of anonymity – still had differing views about what the trailers were. Nevertheless, recalls one team member, within the first four hours "it was clear to everyone that these were not biological labs". The CIA and DIA declined to comment on the specific findings of the technical report because it remains classified. An unidentified spokesman for the DIA is quoted as asserting that the team's findings were neither ignored nor suppressed, but were incorporated in the work of the Iraq Survey Group. "Whether the information was offered to others in the political realm I cannot say".

Meanwhile, at a press briefing White House spokesman Scott McClellan responds to *The Post's* article thus: "I will point out that the reporting I saw this morning was simply reckless and it was irresponsible. The lead in *The Washington Post* left the impression for the reader that the President was saying something he knew at the time not to be true. The President's statements were based on the joint assessment of the CIA and DIA that was publicly released the day before [the President made his statements]."

The next day, *The Post* responds to the reaction of the White House as follows: "Whether White House officials were alerted to the technical team's finding is unclear. In any case, senior administration and intelligence officials continued for months afterward to cite the trailers as evidence that Iraq had been producing weapons of mass destruction – the chief claim used to justify the US-led invasion."

12 April The US Southern Command issues a press release stating that during the previous week it hosted, together with the Office of the Secretary of Defense, a Proliferation Security Initiative (PSI) Operational Experts Group meeting in Miami [see also 24-26 Nov 05]. More than two hundred delegates from twenty states that support the PSI – including Argentina, Australia, Canada, Denmark, France, Germany, Greece, Italy, Japan, the Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Singapore, Spain, Turkey, the UK and the USA –attended the meeting, which was the twelfth of its kind.

13 April The UK government transmits its annual voluntary declaration of BWC confidence-building measures for 2005 to the UN Department of Disarmament Affairs and also publishes them on the Internet. Last year the government announced that it was reviewing a previous decision not to publish its return under the BWC [see 26 Jan 05].

13-14 April In Phnom Penh, there is a workshop on counter-proliferation of weapons of mass destruction, which is jointly organized by the governments of Cambodia, Australia and the UK. Participating are around eighty senior officials from the Cambodian armed forces, the Cambodian police and relevant ministries and agencies. Its aim is to provide the Cambodian authorities with the information and tools necessary to prevent the proliferation of WMD. In his closing speech Deputy Prime Minister and Minister of National Defence Tea Banh says he is convinced that Australia, the UK and international agencies would continue their support and assistance to Cambodia for preventing the proliferation of weapons of mass destruction. [See also 13-15 Dec 05]

16 April In Sydney, at the *Infectious Diseases and International Security Symposium* experts discuss topics such as the proliferation of biological weapons and the terrorist threat relating thereto. According to the Australian Associated Press (AAP) news agency, the consensus from national security, government and health agencies was that the threat of bioterrorism was remote. Christian Enemark, from the Australian Defence Force Academy, says: "From a government point of view, yes, you enunciate the worst case scenario… They feel as if they need to have covered the spread of possibilities."

16 April The Maryland *Frederick News-Post* refers to a report by the US Army Medical Research and Materiel Command relating to multiple incidents of anthrax contamination at the Army Medical Research Institute of Infectious Diseases in 2001 and 2002 [see also 20 Aug 04]. The 361-page report concludes that anthrax spores appear to have contaminated areas months before an accidental release four years ago [see 20 Apr 02 and 2 May 02].

17 April In India, a one-week annual conference commences for heads of the Indian army, navy, air force and military scientists to examine their troops' preparedness for

conflicts involving weapons of mass destruction. According to Agence France-Presse, the scientists at the meeting are expected to discuss anti-radiation clothing, tanks and armoured carriers resistant to WMD attacks, and battlefield command stations.

18 April The US Department of Defence issues an 'Instruction' on *Minimum Security Standards for Safeguarding Biological Select Agents and Toxins*, which, *inter alia*, establishes minimum standards for securing and safeguarding biological select agents and toxins in the custody or possession of the Department, and establishes criteria for personnel concerned therewith.

18-19 April In Moscow, there is a seminar on *Enhancing Biosafety and Biosecurity: An Agenda for Global Action*, which brings together experts from the G8 countries, Sweden and the World Health Organization (WHO) to discuss matters pertaining to international biosecurity ahead of the G8 Summit in St Petersburg in July. The event is in part organized by the Centre of New Medical Technologies (TEMP), Moscow, which is a non-commercial partnership of 17 Russian scientific organizations.

22-26 April In Kuwait, a basic protection course for Kuwaiti first responders dealing with chemical-warfare agents and toxic industrial chemicals (TICs) takes place. Participating in the course, which is jointly organized by the Kuwaiti national authority and the OPCW, are twenty-five representatives from civil defence, the emergency medical services, the fire service and the national guards.

23 April In the USA, the former head of European operations at the Central Intelligence Agency (CIA) accuses the Bush administration of ignoring intelligence assessments about Iraq's WMD programmes in the months leading up to the US-led invasion of Iraq [see 20 Mar 03]. In an interview on CBS News television programme '60 Minutes', Tyler Drumheller cites one instance in September 2002 in which former Director of Central Intelligence George Tenet told President Bush and Vice-President Dick Cheney that Iraqi Foreign Minister Naji Sabri had informed the CIA that Iraq had no active WMD programmes [see 20 Mar]. But, three days later, the White House told CIA officials that it was proceeding with plans to go to war. "And we said, 'Well, what about the intel?' And they said, 'Well, this isn't about intel anymore. This is about regime change'."

23-28 April In Slovenská L'upca, Slovakia, a *Civil-Defence Training Course on Protection against Chemical Weapons* – organized jointly by the government of Slovakia and the OPCW under Article X of the CWC – takes place at the Institute of Civil Protection [see also 10-15 Apr 05]. The course is intended to help CWC parties establish and develop a basic protection capability, and to provide basic training to specialists and experts who are, or will be, associated with the training of civilians in protection against chemical weapons in their home countries. It is attended by thirteen participants from the following CWC parties: Algeria, Armenia, Cyprus, Moldova, Mongolia, Poland, Romania, Saudi Arabia, Serbia and Montenegro, South Korea, Turkey and Uruguay.

24-27 April In Saint Kitts and Nevis, there is a meeting of legal drafters and a training course for customs officials of member states of the Caribbean Forum. The aim of the event, which is organized by the OPCW, is to pursue the objectives of the 'follow-up' to the OPCW national implementation and universality action plans. The meeting of legal drafters brings together lawyers involved in the development of the implementation of the CWC from the following ten parties: Antigua and Barbuda, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, and Trinidad and Tobago. In addition, legal drafters from the Bahamas, a non-party and from the Organisation of Eastern Caribbean States (OECS) are also present. Representatives from the following ten parties attend the training course for customs officials: Antigua and Barbuda, Belize, Dominica, Grenada, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago. An official from the Bahamas also participates.

25 April In Geneva, at the Palais des Nations, there is a meeting on the *Universalisation of the Biological and Toxin Weapons Convention: European Joint Action* [see 27 Feb], which is organized by the Council of the European Union. Presentations on the following subjects are made: 'The goal of universalisation of the BTWC', by Annalisa Giannella, Personal Representative of the High Representative for the EU Foreign and Security Policy on Non-proliferation of WMD; 'The Biological and Toxin Weapons Convention', by Richard Lennane, UN Department of Disarmament Affairs, Secretary of the Preparatory Committee of the Sixth Review Conference of the States Parties to the BWC; 'Security benefits from joining the BTWC', by Jean Pascal Zanders, Director, BioWeapons Prevention Project; and 'Responsibilities and obligations under the BTWC and the contribution of national implementation measures to international peace and security', by Angela Woodward, Deputy Director, VERTIC, and Legal Coordinator, BioWeapons Prevention Project. It is the second meeting under the EU Joint Action; the first meeting, which took place on 4 April in Brussels, having prepared the groundwork for further engagements through regional seminars. [See also 20 Mar]

25 April In the UK House of Commons, responding to a written question addressed to the Defence Secretary as to the number of veterans who have voluntarily presented themselves to the Gulf Veterans' Medical Assessment Programme in each year since 1993, Under-Secretary of State for Defence and Minister for Veterans Don Touhig says: "The total number of veterans seen at the Gulf Veterans Medical Assessment Programme since 1993, is 3,445. This figure includes 3,275 veterans of the 1991 Gulf Conflict (Operation Granby), 136 Porton Down Volunteers, and 34 veterans of the current operation in Iraq (Operation Telic)." Touhig provides a detailed breakdown of the figures for each year from 1993 to 2006.

26 April In Denmark, two Danish reporters for the *Berlingske Tidende* are charged with publishing classified intelligence reports about alleged Iraqi WMD programmes. According to the Associated Press, in early 2004 Michael Bjerre and Jesper Larsen wrote several articles based on leaked Danish Defense Intelligence indicating that there was no evidence that Iraq possessed WMD prior to the US-led invasion in March 2003. If found guilty they could face fines or up to two years imprisonment.

26 April US Secretary of the Air Force Michael W. Wynn issues an 'Air Force Policy Directive' on *Safeguarding Select Agents and Toxins*, which establishes the Air Force Biological Security Program and outlines policy so as to ensure the Air Force safeguards biological select agents and toxins [see also 18 Apr].

26 April In Texas, during a speech to the Armed Forces Communications and Electronics Association, Principal Deputy National Intelligence Director Michael V. Hayden says that recent US and international efforts have "disrupted [al-Qaeda's] efforts to acquire weapons of mass destruction", though he does not elaborate thereon.

26-28 April In Geneva, the preparatory committee for the BWC Review Conference, which will commence on 20 November, convenes under the chairmanship of Masood Khan of Pakistan, with seventy-eight representatives of BWC parties present. At the end of the meeting, the committee issues a press release which states that it agreed a provisional agenda for the three-week meeting, which will provide a "review of the operation of the convention with a view to ensuring that its purposes are being realized". The committee "also considered and agreed upon draft rules of procedure; background documentation; publicity; final documents; appointment of a provisional secretary general; and financial arrangements for the review conference". Global Security Newswire quotes "observers" as saying that the USA was successful in preventing any explicit reference to discussions about creating a verification mechanism from appearing on the agenda. *Arms Control Today* quotes Richard Lennane, the secretary for the committee, as saying "there were three positive outcomes from the meeting". In addition to the adoption of the agenda, the parties agreed that the conference would last a full three weeks, and ordered the preparation of three additional background papers to serve as a basis of common understandings.

A week later, in an interview with Global Security Newswire, Lennane says: "People are very pleased that the different perspectives on the protocol and *ad hoc* group didn't conspire to block an agenda at all… The language in item 11 sort of leaves it open for people to raise the issues they think need to be raised. The language is flexible enough to keep everybody happy."

27 April At OPCW headquarters, the governments of Japan and China submit a request for an extension to be granted beyond April 2007 to complete the chemdemil of munitions abandoned in China by the Japanese Imperial Army.

27 April In The Hague, there is a commemoration ceremony at OPCW headquarters to mark the first observance of the Remembrance Day for all victims of chemical warfare. Among those addressing the ceremony is UN Secretary-General Kofi Annan, who makes the following statement: "Participation in the Chemical Weapons Convention is growing, but it remains incomplete. I call on those states that have not yet ratified or acceded to the convention to do so without delay. Meanwhile, all of us must redouble our efforts to work for full implementation of the convention, but also to ensure that chemical weapons are kept out of the hands of non-state actors. That task will require stepped up vigilance and improved coordination among governments, international organizations and the private sector. On this Remembrance Day, let us honour the victims of chemical warfare by pledging to consign these dreadful weapons to the pages of history."

Meanwhile, the Iranian Foreign Ministry issues the following statement: "The world community is heavily indebted to Iranians for ignoring chemical crimes of Saddam Hussein's regime during Iraq's eight years of imposed war against Iran and for their indifference to sufferings of Iranian chemically injured civilians. The contemporary world could have not experienced massacre of thousands of innocent civilians by fatal chemical warfare, if the big powers, Western states in particular, had not turned blind eye to Saddam's crimes and had instead been a real advocate of humanity."

27 April From the UK, *The Lancet* reports a team of researchers – from the US Army Medical Research Institute of Infectious Diseases (USAMRIID) and the National Microbiology Laboratory at the Public Health Agency of Canada – as having tested a vaccine that has proved effective in preventing hemorrhagic fever in monkeys after they were exposed to the Marburg virus. The team, which was led by Thomas Geisbert of USAMRIID, created the vaccine by replacing a gene from a benign virus with a gene encoding a surface protein on the Marburg virus. Previous research showed the vaccine could protect against Marburg hemorrhagic fever if it was given before infection. However, this study suggests the vaccine may be an effective post-infection treatment for the disease.

27 April The UN Security Council unanimously passes a resolution to extend the mandate of the 1540 Committee until 27 April 2008. The current mandate was due to expire in one day's time. Resolution 1673 charges the Committee to intensify its efforts to increase States' compliance through a new work programme that includes outreach, dialogue and technical assistance.

28 April Iran attempted to acquire information relating to weapons of mass destruction in the Netherlands last year, so reports Agence France-Presse, quoting from the annual report of the Dutch intelligence services. ANP quotes news agency Dutch intelligence chief Sybrand van Hulst as saying: "We have seen some activities in that sense… So-called countries of concern have persisted in 2005 in their attempts to get information and means for the deployment of weapons of mass destruction."

28 April The US Government Accountability Office transmits to Congress *Chemical and Biological Defense: DoD Needs Consistent Policies and Clear Processes to Address the Survivability of Weapon Systems Against Chemical and Biological Threats*. The purpose of the report is to evaluate the extent to which the DoD addresses weapon-system chemical and biological survivability during the acquisition process, and its internal controls for maintaining a comprehensive database that includes chemical and biological survivability research and test data for weapon-system design and development. The report states: "To better ensure the incorporation of chemical and biological survivability into weapon systems, we recommend that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology, and Logistics to take the following six actions: Either modify current DoD policy or develop guidance to ensure that chemical and biological survivability is consistently addressed in the weapon system acquisition process… [and] modify current DoD policy to ensure that DoD's database of chemical and biological scientific and technical information is comprehensive."

May The US Central Intelligence Agency releases *Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions* for the period 1 January to 31 December 2004 [see 23 Nov 04].

The country-specific part of the report states:

"Iran is a party to the [CWC]. Nevertheless, during the reporting period it continued to seek production technology, training, and expertise from foreign entities that could further Tehran's efforts to achieve an indigenous capability to produce nerve agents... As of 2004, the status of Iran's biotech-

nology infrastructure indicated that at a minimum, Iran probably had the capability to produce at least small quantities of BW agents for offensive purposes. Iran continued to seek dual-use biotechnology materials, equipment, and expertise that is consistent with its growing legitimate biotechnology industry but could benefit Tehran's BW program.

"International investigations of Libya's WMD-related activities continued through 2004 [see 19 Mar 04]. During 2004, Libya acceded to the [CWC], destroyed over 3,500 aerial chemical bombs, and requested assistance in destroying agent stockpiles and approval to convert Pharma 150 to pharmaceutical production... Libya disclosed past intentions to acquire equipment and develop capabilities related to biological warfare, but it remained unclear if those activities were offensive or defensive in nature. At the expert teams' request, Libya provided access to a number of civilian medical-, bio-technical-, and agricultural-related research centers and scientists that had 'dualuse' potential to support BW-related work.

"During 2004, most of North Korea's chemical-related activity involved the procurement of the dual-use chemical sodium cyanide. We believe that most, if not all, of this chemical was for legitimate gold or zinc mining and production... North Korea acceded to the [BWC] in 1987 but continues to pursue BW capabilities. North Korea has the scientists and facilities for producing biological products and microorganisms, and has the ability to produce traditional infectious biological warfare agents or toxins. Pyongyang's resources presently include a rudimentary biotechnology infrastructure. In 2004, Pyongyang acquired dual- use bio-technical equipment, supplies, and reagents that could be used to support a BW program. North Korea possesses a conventional munitions production infrastructure that could be used to weaponize BW agents.

"Syria continued to seek dual-use technology from foreign sources during the reporting period. Damascus already held a stockpile of the nerve agent sarin, but apparently has tried to develop a more toxic and persistent nerve agent. We assess that Syria remains dependent on foreign sources for key elements of its CW program, including precursor chemicals. During 2004 Syria probably also continued to develop a BW capability.

On terrorism-related activities with regard to chemical weapons, the report states:

"A steady stream of reporting in 2004 showed the ongoing proliferation of information on chemical agents and dissemination methods, as well as an increase in the incidents of chemical-related activity in areas of heavy jihadist activity, such as Iraq, Afghanistan, and Pakistan. The majority of these incidents involved toxic industrial chemicals (TICs), such as cyanide and pesticides intended to contaminate food and water supplies or assassinate individuals, or the crude modification of conventional weapons that could be used to deliver toxic chemicals against Coalition forces. No chemical attacks were documented in 2004, but a volume of intelligence reporting suggests that the threat of chemical terrorism – particularly small-scale attacks – is increasing:

- Information about chemical devices and recipes, and widely circulated mujahidin poisons training manuals, are easily accessible on the Internet.
- Varying quantities of chemicals and paraphernalia indicative of extremist intent to construct chemical devices and/or perpetrate unspecified chemical attacks were recovered in 2004.
- A group of Iraq-based insurgents connected to the Jaish Mohammad – dubbed the al-Abud network – focused their efforts on producing nerve and blister agents, which require significantly greater technical and scientific expertise than weaponizing TICs. Before being disrupted in 2004, the group knew the process for making a nerve agent and had made limited progress toward producing a blister agent for use in crudely modified conventional mortar rounds against Coalition forces.
- There is no reporting to indicate that terrorist groups received chemical agents, weapons, or designs from a foreign government sponsor last year. Reporting does indicate, however, that groups may have acquired chemicals from unknown foreign suppliers."

On the subject of terrorism and biological weapons the report says:

"Reporting on proliferation of biological weapons and related materials to and among terrorist organizations during 2004 was primarily limited to interest in crude methods for producing and disseminating toxins – such as ricin – and clarification of historical terrorist biological efforts. Despite a lack of corroborated reporting on plans for a major terrorist biological attack, or an actual event, the ricin hits in the US Senate in February 2004 serve as a reminder that biological agents – at least on a small scale – are within the reach of some nonstate actors.

"Reporting in 2004 did not provide any insight into a current biological weapons effort from al-Qa'ida. However, we judge the group remains interested in using these weapons in attacks against US interests – historically a high-priority endeavor – despite setbacks encountered because of military activities in Afghanistan and the Federally Administered Tribal Area since 2001.

"Al-Qa'ida-associated operatives in 2004 continued to train in basic ricin preparation techniques and at least brainstormed ways to use it in small scale attacks, although we have no specific information on terrorist plots to use ricin in attacks.

"In 2004, we received multiple disparate reports that mujahidin and insurgents in rural areas along the Pakistan-Afghanistan border were attempting to conduct attacks using 'anthrax'. The description of the substance allegedly in possession of these individuals was generally more consistent with a chemical-based contact poison than anthrax, and it appeared that many mujahidin in the region used the term 'anthrax' as a catch-all phrase to describe any poison, chemical, or biological agent."

"The 'key suppliers' section of the report states that during 2004 "Chinese firms continued to provided dual-use chemical production equipment and technology to Iran" and that "countries of concern continued to contact Russian entities for dual-use chemical precursors and equipment". It adds: "Russia's well-known biological and chemical expertise may make it an attractive target for countries seeking assistance that could be applied to chemical or biological warfare programs."

May The US Counterproliferation Program Review Committee – which is comprised of representatives from the Department of Defense, Department of Energy, Central Intelligence Agency, and the Joint Chiefs of Staff – releases an 'Executive Summary' of its annual classified report to Congress on *Activities and Programs for Countering Proliferation and NBC Terrorism*. The Summary prioritizes areas of counter-proliferation activity within the departments concerned and sets out the Committee's overall ranking of counter-proliferation priorities. In this regard, the Committee identifies the following eight priorities in order of importance: interdiction, elimination, threat reduction co-operation, passive defence, security cooperation and partner activities, offensive operations, active defence and consequence management.

May In the USA, the National Research Council Committee on Assessing Vulnerabilities Related to the Nation's Chemical Infrastructure releases *Terrorism and the Chemical Infrastructure: Protecting People and Reducing Vulnerabilities*. The study, which was requested by the Department of Homeland Security (DHS), sets out ten recommendations that the DHS should adopt to minimize the threat of or consequences of a terrorist attack on the chemical infrastructure of the USA.

1 May In New Delhi, Japan and India are scheduled to hold their first senior working-level talks on disarmament and non-proliferation which, according to unnamed Japanese Foreign Ministry officials, will include the discussion of measures to reduce the threat from chemical and biological weapons, so reports Kyodo news agency.

1-5 May In Spiez, Switzerland, the sixth [see 25-30 Apr 04] Chemical and Biological Medical Treatment Symposium (CBMTS) takes place. Participants discuss the effects of the misuse or abuse of chemical, biological and radiological agents, whether intentional or accidental, on the community and individuals, whether military or civilian, and on the infrastructure of government. The scientific, medical and policy aspects relating thereto are also discussed.

2 May At UN headquarters, UN Secretary-General Kofi Annan presents to the General Assembly *Uniting against Terrorism: Recommendations for a Global Counter-terrorism Strategy*, a report that was compiled further to a request made at the World Summit last year [see 14-16 Sep 05]. On the subject of chemical and biological weapons, it states: "The most important under-addressed threat relating to terrorism, and one which acutely requires new thinking on the part of the international community, is that of terrorists using a biological weapon… The approach to fighting the abuse of biotechnology for terrorist purposes will have more in common with measures against cybercrime than with the work to control nuclear proliferation… What we need now is a forum that will bring together the various stakeholders – Governments, industry, science, public health, security, the public writ large – into a common programme, built from the bottom up, to ensure that biotechnology's advances are used for the public good and that the benefits are shared equitably around the world. Such an effort must ensure that nothing is done to impede the potential positive benefits from this technology. The United Nations is well placed to coordinate and facilitate such a forum, and to bring to the table a wide range of relevant actors. I urge Member States to consider this proposal in the near future… the General Assembly and the Security Council may wish to consider adopting a resolution calling on all States to provide the necessary cooperation and assistance in the event of a terrorist attack using weapons of mass destruction. It may also be necessary to develop or review guidelines for Member States on their response to such an attack, in particular steps to report it and to request international assistance."

2-3 May In Dubai, a workshop is scheduled to take place on *Laying the Foundations for a WMDFZ in the Gulf: Approaches to National Legislation for WMD Agreements*, which is organized by the Gulf Research Center with the support of the Verification Research, Training and Information Center (VERTIC). It is the third in a series of workshops organized by the Center as part of its research project to promote declaring the region a WMD-free zone.

3 May In the UK House of Commons, responding to a written question as to whether he will list the four countries referred to in paragraph 165 of the Hutton Report [see 28 Jan 04], Prime Minister Tony Blair says: "No. The Government co-operated fully with the Hutton Inquiry." The paragraph in question states: "In mid March 2002 it was decided by the Prime Minister's Office and by the [Foreign Office] not to continue work on the paper relating to the WMD capabilities of four countries. At that time increasing attention was being given to Iraq and its WMD capabilities and the assessment staff were therefore asked to continue with the drafting of a paper relating to Iraq alone."

3 May US President George Bush releases *National Strategy for Pandemic Influenza: Implementation Plan*, which "clarifies the roles and responsibilities of governmental and non-governmental entities". Amongst other things, the report states: "Unlike geographically and temporally bounded disasters, a pandemic will spread across the globe over the course of months or over a year, possibly in waves, and will affect communities of all sizes and compositions. In terms of its scope, the impact of a severe pandemic may be more comparable to that of war or a widespread economic crisis than a hurricane, earthquake, or act of terrorism". The 227-page report builds on the *National Strategy for Pandemic Influenza*, released by the White House on 51 November 2005, which outlines the preparation being taken by the administration in anticipation of a pandemic.

4 May In the US House of Representatives, the Homeland Security Subcommittee on Prevention of Nuclear and Biological Attacks holds a hearing on *Bioscience and the Intelligence Community*. It is a continuation of a hearing held by the Subcommittee six months previously, which addressed medical and biological intelligence [see 3 Nov 05]. Testifying before the committee are: Director of the National Counterproliferation Center, Office of the Director of National Intelligence Kenneth Brill; Chief Intelligence Officer, Homeland Security Department Charles Allen; Director of Weapons Intelligence, Nonproliferation and Arms Control, Central Intelligence Agency Bruce Pease; and Head of the Counterproliferation Support Office, Defense Intelligence Agency Alan MacDougall.

4 May In Washington, DC, the Center for Nonproliferation Studies holds a CBW breakfast seminar on *The Conduct of Laboratory Research to Characterize Biological Threat Agents.* Giving the presentation is the Deputy Director of the Center for the Study of WMD at the National Defense University, Seth Carus.

4 May In Atlanta, US Defense Secretary Donald Rumsfeld says that he relied on intelligence reports when he claimed, prior to the US-led invasion of Iraq [see 20 Mar 03], that Iraq possessed weapons of mass destruction. Responding to a heckler at a public forum who says: "You said you knew where they [weapons of mass destruction] were", Rumsfeld retorts: "I did not. I said I knew where suspected sites were." Responding to an accusation by Ray McGovern, a former analyst at the Central Intelligence Agency, that he lied about the existence of the weapons, Rumsfeld says: "I did not lie... I'm not in the intelligence business... It appears that there were not weapons of mass destruction there."

5 May In New Delhi, the Army launches a training programme – organized by the Panther Division of the Vajra Corps at its Vajra Battle School in Amritsar – for its personnel to use chemical, biological and nuclear warfare equipment.

5 May The US Department of Health and Human Services announces the purchase of an additional five million doses

of Anthrax Vaccine Adsorbed (AVA) from BioPort Corporation for $120 million under Project Bioshield [see 21 Jul 04], thereby modifying a contract made with the company a year ago to purchase five million doses of the vaccine.

6 May In Baghdad, during a raid on a suspected militant safe-house, security forces kill a member of Ansar al-Islam who, the US authorities claim, had expertise in toxins and poisons as well as with artillery, tanks and anti-aircraft weapons. The Associated press reports that Ali Wali planned suicide strikes and trained insurgents in kidnapping, launching ambushes, preparation of explosives, and in chemical weaponry.

6 May In Jerusalem, Aaron J Klein, a military and intelligence affairs correspondent in the Jerusalem bureau of *Time* magazine, discusses his book *Striking Back*, published in December 2005, in which he describes how, over a six-month period starting in 1977, Mossad poisoned a member of the Popular Front for the Liberation of Palestine by lacing his Belgian chocolates. Speaking on Israel Radio, Klein describes how Mossad, with the help of a Palestinian, tracked down Wadia Haddad in Baghdad after he had gone into hiding. Haddad was suspected by Israel of having been behind multiple hijackings, including that of an Air France aeroplane at Entebbe airport, Uganda in 1976. Klein says that when Haddad died in March 1978, he only showed symptoms of leukaemia, but none of having been poisoned. He then refers to how, ten years ago in Jordan, Israeli agents unsuccessfully tried to eliminate Khaled Mish'al, the head of the political bureau of the Islamic militant group Hamas, by administering him a poison, reported to have been the opiate Fentanyl [see 25 Sep 97]. Klein says that because of the level of sophistication of Mossad, it would take years to prove any of the recent allegations made against Israel that it had poisoned the late Palestinian leader Yasser Arafat [see 8 Sep 05]. Klein's book recently came out in Hebrew in Israel. Previously, it had been translated from the English into several other languages.

6-8 May In Saintes in Poitou-Charentes, France, more than a hundred scientists, academics and representatives of non-governmental organizations from twenty countries convene for the second [see 29-31 Oct 04] international conference on disarmament of chemical, biological and nuclear weapons.

7-10 May In Abu Dhabi, the third [see 14-17 Mar 05] CWC regional workshop on the practical implementation of the CWC for national authorities of the Gulf Cooperation Council (GCC) states takes place. It is jointly organized by the GCC Network (comprising the six member states of the GCC) and the OPCW. In addition to the member states of the GCC – being the United Arab Emirates, Bahrain, Saudi Arabia, Oman, Qatar and Kuwait – Yemen, not a member of the GCC, also participates for the first time.

8 May North Korea is attempting to weaponize the bird flu virus according to briefings classified as "Top Secret/Sensitive Compartmented Information" given by the US administration to Congress, so reports *Joseph Farah's G2 Bulletin*, published by WorldNetDaily. The *Bulletin* refers to an unidentified "high-ranking defector from North Korea's Academy of Sciences" as having "told intelligence officers that the research to weaponize the virus is now a priority".

8 May In the UK House of Commons, responding to a written question addressed to the Foreign Secretary asking her to list the countries her office has classified as having an offensive biological warfare capability in the last thirty years, Minister of State for the Foreign Office Kim Howells says: "The dual-use nature of virtually all the know-how, materials and equipment used in biology means that most industrialised countries have such a capability."

In response to a follow-up question as to what recent assessment the Foreign Secretary has made of the capacity of Russia to produce biological weapons; and what stores of such weapons she assesses that Russia holds, with particular reference to (a) smallpox and (b) genetically modified smallpox, Howells says: "The Government keep under review the potential military capability of other States, but it is not our practice to divulge the details."

8 May UK Minister of State for the Armed Forces Adam Ingram responds, in the House of Commons, to a written question addressed to the Defence Secretary as to how many animals have been used in experiments at Dstl Porton Down in each of the last five years, broken down by (a) breed and (b) procedures carried out. Ingram gives a breakdown, in the form of a table of annual returns relating to each species (Guinea pigs, ferrets, hamsters, mice, pigs, rabbits, rats, sheep, cattle, 'non-human' primates) for the years 2000 to 2005. The cumulative total for all species for 2005 was 21,118, up from 15,728 in 2004 and 11,985 in 2000.

In a follow-up written question one month later, the same questioner asks Ingram to *inter alia* list the UK companies, foreign companies and foreign governments with whom the results of animal experiments at Porton Down have been shared. Ingram's response only addresses the general procedure under which the experiments are undertaken; he fails to provide an answer to this question and to another one relating to the amount of income generated by the Ministry of Defence from the work.

Six weeks later, in response to a written question asking how many animals were used at Porton Down in each of the last three years, broken down by species, Ingram replies by referring to the same data as above.

8-12 May In Tshwane, South Africa, the second regional assistance and protection course for African parties to the CWC takes place. The course is jointly organized by the government of South Africa and the OPCW under Article X of the Convention. It provides training on planning and building a response team for civilian protection; civilian defence and rescue operations in contaminated areas; and measures available against incidents involving chemical-warfare agents and toxic chemicals. The course concludes with a practical emergency-response exercise. In total twenty-seven participants from seventeen African CWC parties attend, including Algeria, Botswana, Burkina Faso, Cote d'Ivoire, Ethiopia, Ghana, Guinea, Kenya, Libya, Madagascar, Malawi, Morocco, Namibia, Nigeria, South Africa, Zambia and Zimbabwe.

8-18 May US and Canadian defence agencies undertake a joint exercise at various locations, involving more than five thousand civilian and military personnel. The purpose of the exercise is to test the response capabilities of the US Northern Command and North American Aerospace Defense Command to an attack using unconventional weapons. Scenarios of exercise 'Ardent Sentry' include the explosion of railway carriages carrying chlorine and phosgene gas in Detroit and the release of plague bacteria in Mexico City, the latter of which results in a flood of refugees into the USA.

9 May The US Army announces that the USA will not meet its CWC chemdemil deadline of April 2012. The announcement follows a request made by the USA to the

OPCW that it be granted an extension of its deadline from 2007 to 2012 [see 10 Apr]. It states that under the revised schedule operations extending beyond 2012 will continue at Alabama, Arkansas, Oregon and Utah. Only the Newport facility is expected to complete its operations before 2012. The revised schedule does pertain to the Kentucky and Colorado stockpiles currently under the destruction purview of Assembled Chemical Weapons Alternatives programme of the Department of Defense. The Army says that as of 3 May it had destroyed 10,125 metric tons of chemical agents since entry into force of the CWC, or 36.5 per cent of its declared inventory of chemical agents.

9 May In the US House of Representatives, before the Government Reform Subcommittee on National Security, Emerging Threats and International Relations, Chief Technologist, Center for Technology and Engineering, Applied Research and Methods, Government Accountability Office (GAO) Keith Rhodes testifies on *Anthrax: Federal Agencies Have Taken Some Steps to Validate Sampling Methods and to Develop a Next-Generation Anthrax Vaccine*. He says that the GAO recommends that the Secretary of Homeland Security needs to develop a formal strategic plan, including a roadmap, outlining how individual agency efforts would lead to the validation of the overall sampling process.

10-12 May In Manila, around fifty officials from the Philippine trade, agriculture, security and law enforcement agencies participate in a workshop at which they receive training on WMD export controls from Australian officials and experts. Speaking to Reuters news agency Pablo Kang, the deputy head of mission of the Australian Embassy in Manila, says: "We are trying to enforce tighter export control regimes to help countries develop their own systems so that terrorists' use and access to weapons of mass destruction is cut down."

12 May In Kambarka, Russia, speaking during a conference there, Valeriy Kapashin, the head of the federal directorate for safe storage and destruction of chemical weapons, says that the Kambarka chemdemil facility has now destroyed more than 245.5 tons of lewisite since entering into service [see 1 Dec 05]. He also says that the facility is currently destroying around 5.5 tons of lewisite every 24 hours, and that in the near future this should reach an industrial capacity of up to 8 tons every 24 hours. The facility was officially opened two months ago [see 1 Mar].

13 May The North Korean daily *Nodong Sinmun* runs an article setting out the alleged use by the USA of chemical and biological weapons against North Korea during the Korean War. Four years previously, the KCNA news agency reported that a "special" committee had concluded in a "white paper" that US forces had used such weapons during the period in question [see 25 May 02]. The article by *Nodong Sinmun* essentially repeats the statistics set out by that committee. The same statistics are cited by KCNA news agency a month later when it carries a story on the subject to coincide with 25 June, which was "the day when the US imperialists started a war of aggression in Korea". [See also 16 Jul 04]

13-14 May In the Netherlands, at Noordwijk, the Pugwash Study Group on the Implementation of the CBW Conventions conducts its 24th workshop. The subject is *Achieving a Successful Outcome of the Second CWC Review*. There are 20 participants from nine countries (Argentina, Germany, Iran, Italy, the Netherlands, Poland, Russia, the UK and the USA), all in their personal capacities.

15 May In Australia, Black Inc. Agenda publishes *The Weapons Detective* by Rod Barton. In the book, Barton discusses his career since 1972 as a microbiologist at the Australian Defence Intelligence Organisation as well as his work with UNSCOM, UNMOVIC and the Iraq Survey Group. He also discusses his research on Yellow Rain in south-east Asia. [See also 14 Feb 05]

15 May In Brussels, during the sixteenth [see 5 Apr 05] Joint Council and Ministerial meeting between the European Union and the members of the Co-operation Council for the Arab States of the Gulf (GCC) delegations discuss, *inter alia*, the non-proliferation of weapons of mass destruction. A joint communiqué released following the session states: "The EU and GCC will ensure full compliance with, and national implementation of, their existing obligations under non-proliferation and disarmament treaties and agreements and work for the strengthening and universalisation of these instruments, in particular in view of the upcoming [BWC] Review Conference in November 2006. The EU and the GCC stressed the importance of the establishment and implementation of effective systems of national export controls in accordance with UNSC resolution 1540. The EU and the GCC value and support the goals and principles of the Proliferation Security Initiative. The EU and the GCC reiterated their shared objective to pursue the establishment of a zone free of WMD and their means of delivery in the Middle East, including the Gulf region." The GCC comprises the United Arab Emirates, Bahrain, Saudi Arabia, Oman, Qatar and Kuwait.

15-18 May In Lüneburg, Germany, the annual *Chemical Weapons Demilitarization Conference* is held. The purpose of the conferene is to address the technical problems associated with chemdemil under the CWC. Topics discussed include the latest developments in chemical analysis of chemical weapon agents; procedures on the safe handling of non-stockpiled munitions; and issues concerning the redirection of former chemical weapon scientists.

15-19 May In Lázne Bohdanec, Czech Republic, the sixth [see 16-20 May 05] international training course on protection against chemical weapons takes place at the Institute for the Protection of the Population. It is an annual course offered by the government of the Czech Republic under Article X of the CWC, which it organizes jointly with the OPCW. It provides participants with training in planning and building a support team for civilian protection and rescue operations in contaminated areas, as well as in appropriate responses and countermeasures in the event of incidents involving chemical-warfare agents. In total, nineteen participants from the following CWC parties attend the course: Albania, Algeria, Azerbaijan, Belarus, Bosnia and Herzegovina, Colombia, Ethiopia, Jordan, Morocco, Mexico, Netherlands, Nigeria, Poland, Philippines, Russia, Serbia and Montenegro, Viet Nam, Venezuela and Qatar.

16-19 May At OPCW headquarters, the Executive Council convenes for its forty-fifth [see 14-17 Mar] session, which is chaired by Hlengiwe Buhle Mkhize of South Africa.

The Council approves the agreed detailed plans for chemdemil verification at the Newport facility in the USA and at the Kambarka facility in Russia.

The Council approves a facility agreement between the OPCW and the USA regarding on-site inspections at the Newport facility, which it had considered at previous sessions, and one between the OPCW and Russia with regard to on-site inspections at the Kambarka facility.

The Council notes that, in relation to the annual provision

by each party of information on its national programmes for protective purposes pursuant to paragraph 4 of Article X of the CWC, only 55 parties had submitted such information for activities conducted during 2004, and that only 35 parties had submitted information for activities conducted during 2005. It also notes that only 66 parties had, pursuant to paragraph 7 of Article X, elected one or more measures in relation to how they would provide assistance through the OPCW in the event of the use, or threat of use, of chemical weapons against another party. The Council requests the Secretariat to follow up with parties that have not yet fulfilled their obligations, and, where requested, to support implementation by them.

Further to consideration of the subject at its previous session, the Council approves two notes by Director-General Rogelio Pfirter containing lists of new validated data.

The Council commends the ongoing work of the OPCW open-ended working group on terrorism, and requests it to review the implementation of the Council's previous decision relating to the contribution made by the OPCW to global anti-terrorist efforts.

17 May In Rzhanitsa, Russia, a scientist finds an underground storage depot for toxic agents which was built in the 1930s and was where the Soviet army had buried mustard gas and lewisite in 1941, so reports the Moscow *Tribuna* newspaper, which is run by Gazprom, a state-owned company. *Tribuna* reports that Lev Fedorov, president of the Union for Chemical Safety, made the discovery after following-up a limited amount of information recently published by the Russian military on chemical-weapons bases in the former Soviet Union in the 1930s. *Tribuna* quotes one such document as stating: "Substance No.6 and Substance No.17 were at that time taken to Depot No.137. In some year Substance No.6 was transported to a numbered facility, but the tanks leaked afterwards, and a woman died." After searching through the archives Fedorov concluded that Depot.137 was located in Rzhanitsa, near to Bryansk. According to *Tribuna*, Rzhanitsa was one of three large chemical depots that existed prior to the Second World War. Another was discovered in Kuzminiki, Moscow, where Fedorov was involved in analysing ground samples [see 27 Sep 01]. The third base is at Rostov-Yaroslavskiy.

18 May In the UK House of Commons, responding to a written question asking what the present functions are of Operation Rockingham and how many staff are employed on it, Defence Secretary Des Browne says: "The Operation Rockingham cell is working on residual issues relating to Iraqi WMD and analysing the lessons learned from the Iraq Survey Group deployment. It consists of three people (two part-time and one full-time)."

18 May In Santiago, Chile, a court hears evidence from army generals and aides that an agent developed under a secret biological weapons programme run by General Augusto Pinochet's secret police was used to murder former president Eduardo Frei Montalva in January 1982 as he recovered from a hernia operation, so reports *The* (London) *Guardian*. Retired army generals reportedly asked Judge Alejandro Madrid for permission to present evidence that Pinochet had ordered the "disappearance" of Eugenio Berrios, a secret operative who had been responsible for the production of anthrax, botulism and the nerve gas sarin and who, according to the Prosecution, had developed the agent that killed Frei. *The Guardian* quotes Alvaro Varela, the Frei family lawyer, as describing the evidence as "precise, clear and concrete" in proving that Pinochet announced the order to have Berrios kidnapped and killed for fear that he would reveal that he had personally ordered the murder of senior opposition figures including Frei and Orlando Letelier, a former chancellor. Berrios's body was found with two bullets in his head on a beach near Montevideo, Uruguay, in 1995. The subsequent investigation by Jorge Molina, a Chilean journalist, proved that Berrios had been smuggled halfway across South America, then murdered with the complicity of Chilean and Uruguayan intelligence agencies. *The Guardian* quotes Judge Madrid as saying that his investigation of Pinochet is based on "direct proof, not as head of the chain of command".

19 May At UN headquarters, the 1540 Committee, established by the Security Council pursuant to resolution 1540 [see 28 Apr 04], launches a web-based database on the implementation by states of the provisions of the resolution. The database contains links to public sources of relevant information about national legislative and other regulatory measures of the States that have submitted reports to the Committee on their implementation of the resolution.

19 May In the UK, a Member of Parliament says that he has launched an investigation into "unanswered questions" relating to the death of Dr David Kelly [see 17 Jul 03]. Norman Baker, who began his investigation two months ago after he left his front bench role partly in order to concentrate on the investigation, says the Hutton report [see 28 Jan 04] had "blatantly failed to get to the bottom of matters". Baker tells *The* (London) *Guardian* that the Hutton inquiry "was not carried out using proper rules of evidence, people were not giving evidence under oath and the whole thing became a criticism of the BBC". He says he has given himself a year to carry out his inquiries, which will include reviewing the medical evidence and the interviews with experts and looking at issues relating to the case. Speaking to BBC News Online, Baker says: "It struck me as extremely odd at the time that Dr Kelly was thought to have committed suicide in the way he did, at the time he did... The more I look into it the less convinced I am by the explanation and the more unanswered questions appear which ought to have been addressed properly by the Hutton inquiry or by the coroner... The most important unanswered question is why he would have wanted to commit suicide, which still hasn't been addressed."

Two months later, Baker tells BBC News Online that he has evidence to prove Dr Kelly did not die as a result of suicide and also that he has informed the police that computer files at his [Baker's] Lewes constituency office have been remotely wiped. "What my investigations to date have demonstrated is that there are significant medical doubts from professional medical people about the alleged cause of death", says Baker. He continues: "Indeed there are a number of specialist medical experts who tell me that it is clinically impossible for Dr David Kelly to have died the way that was described... I am suggesting the explanation for suicide simply doesn't add up." Two weeks thereafter, in an interview with the *Mail on Sunday*, Baker says: "Any reasonable person looking at the evidence would, at the very least, agree that further investigation is necessary… If it wasn't suicide, then clearly Dr Kelly was bumped off. My aim is to find out exactly what happened. Frankly, there is more than enough cause to reopen the inquest." [See also 12 Dec 04]

19 May In Washington, DC, the Russian American Nuclear Security Advisory Council (RANSAC) holds its third seminar in its 2006 Congressional Seminar Series on the control and elimination of WMD. The subject of the conference is *Preventing Terrorist Exploitation of the Biotechnology Revolution*. [See also 20 May 05]

20-22 May In Berkeley, California, at a conference on *Synthetic Biology 2.0*, scientists who work with synthetic biology discuss participating in a voluntary code of self-regulation. The day before the conference opens, a group of thirty-eight social movements and other civil society organizations signed a letter urging the scientists "to withdraw these self-governance proposals and participate in a process of open and inclusive oversight of [the] technology". The conference concludes with participants only having suggested, but not having voted on, two recommendations related to preventing companies involved in the synthesis of DNA from supplying sequences that have the potential to be misused.

22 May The US Chairman of the Joint Chiefs of Staff issues an 'Instruction' on a *Joint Strategy for Biological Warfare Defense*, the purpose of which is to provide "an operational framework and principles to assist commanders and staffs to conduct military operations and provide force protection for any assigned or controlled forces against an adversarial use of biological weapons". To this end, the Instruction provides a "broad guidance describing how the DoD [Department of Defense] agencies, unified combatant commands, and Services should plan, integrate, and provide biological warfare defense in support of the joint force". The strategy supports the implementation of the *National Strategy for Combating Weapons of Mass Destruction* [see 11 Dec 02], the *National Strategy for Biological Warfare Defense*, the *National Military Strategy for Combating Weapons of Mass Destruction*, and the DoD memorandum, *Preparedness of the US Military Installations and Facilities Worldwide Against Chemical, Biological, Radiological, Nuclear and High-Yield Explosive (CBRNE) Attack*.

22-23 May In Mexico City, there takes place the seventh [see 21-22 Apr 05] regional meeting of national authorities of CWC parties in Latin America and the Caribbean, which is jointly organized by the government of Mexico and the OPCW. The Dominican Republic, which has signed but not yet ratified the CWC, is also represented. During the meeting, the national authorities identify the additional steps they each need to take in order to implement their obligations under Article VII action plan [see 20-24 Oct 03]. National requests for implementation support, and offers of such support, are also considered.

22-27 May In Geneva, the fifty-ninth [see 16-25 May 05] annual session of the World Health Assembly takes place. Members of the World Health Organization (WHO) fail to agree on a date for destruction of the last remaining samples of variola virus in the USA and Russia. Destruction of the variola stocks emerges as the most controversial issue during the session, with many developing countries advocating a firm date for destroying the stocks and stricter WHO controls over them, whilst the USA and Russia resist such moves. Given the lack of consensus, a working group is formed to discuss the draft resolution on days five and six. However, the mood in the working group turns "ugly" during some phases as several items prove to be contentious, according to SmallpoxBioSafety.org, quoting "some diplomats". The USA refuses to consider a new date for destruction of the stocks, offering only to have a "major review" of research on the virus in 2010. Instead, it is agreed that the WHO Executive Board draft a resolution on the issue in January 2007, which the Assembly will then vote on later in the year.

23 May In the UK, a team of archaeologists say that a factory that produced hundreds of tons of mustard gas during the Second World War , should be preserved. The team from Birmingham University's school of archaeology examined the industrial heritage of The Valley Works at Rhydymwyn, Flintshire, the origins of which can be traced to a foundry dating back to 1747, over a five-month period. Their work included evaluating the atomic bomb research, codenamed Operation Tube Alloys, whence a number of scientists later left to work on the Manhattan Project to develop the first atomic bomb. Since 2003, the site has been open to the public as a nature reserve. The team's project manager, Kirsty Nichol says: "It is hugely important. Because of the tube alloys project, these type of structures do not survive anywhere in England from this period... It's not a particularly nice thing to think about – chemical weapons to kill people – but in terms of the wartime mentality, when everyone had their own gas mask, it touched the lives of an awful lot of people in the UK."

23-24 May In New York, the UNMOVIC College of Commissioners convenes for its twenty-third [see 21-22 Feb] regular session. As on previous occasions, observers from the OPCW and the IAEA are also present.

Four days previously, Stephen G. Rademaker of the USA resigned from the College. In his stead, UN Secretary-General Kofi Annan appointed Francis C. Record, also of the USA.

24 May In the southern Philippines, during a raid on the home of the leader of Jemaah Islamiah, Taufiq Rifqi, police have discovered a training manual on developing and launching an attack using, amongst other things, hydrogen cyanide, according to Rohan Gunaratna. Speaking at a conference on cyber-terrorism in Kuala Lumpur, Gunaratna, a researcher in terrorism, says the 26-page document, hand-written in Bahasa [a language spoken in Indonesia], discusses several chemical gases, pesticides, narcotics and biological toxins, including hydrogen sulphide, phosgene, chlorine and arsenic. He says the manual "expresses considerable optimism and fascination with regard to how minuscule amounts of the respective agent are needed to kill a large number of people". Gunaratna says that with regard to one toxin the document says, "30ml of the agent can kill 60 million people, God willing", and that it suggests that hydrogen cyanide should be the agent of choice because it is easiest to produce and deliver. Gunaratna says the production and delivery methods described in the manual for chemical attack were accurate. [See also 19 Oct 03 and 26 Jan 04]

24 May US Defense Secretary Donald Rumsfeld has directed the Joint Program Office for Nonlethal Weapons to prepare a new investment plan that could double the spending on nonlethal technologies for the fiscal years 2008 to 2013, so reports InsideDefense.com, quoting unidentified "military sources". Rumsfeld reportedly called for the revised investment plan in classified strategic planning guidance issued earlier this year, noting that the military will increasingly require non-lethal technologies for counter-terrorism operations and homeland defence. Spokesperson for the Marine Corps Sarah Fullwod says the plan "must still be reviewed by senior leadership at the Office of the Secretary of Defense, and therefore the specific content is predecisional and can't be discussed at this time". The move to support wider use of "non-lethal weapons" echoes recommendations made two years ago by the Independent Task Force on Nonlethal Weapons and Capabilities, convened by the Council on Foreign Relations [see 26 Feb 04]. The Task Force had advised, however, against any effort to legitimize using riot-control agents or other disabling chemicals as a emthod of warfare, saying that would risk impairing the legitimacy of other forms of "non-lethal weapon".

24 May The US Congressional Research Service releases *US Disposal of Chemical Weapons in the Ocean: Background and Issues for Congress*,which concludes that a lack of information relating to the dumping of chemical weapons off US and foreign coasts from the end of the First World War up until 1970 makes it difficult to determine the magnitude of the threat. The report states: "Incomplete historical records significantly limit the ability to identify and assess the condition of these weapons, particularly to determine whether chemical agents may have leaked, or are likely to do so. [There should be a] further review of historical records to attempt to identify sites where weapons were dumped in certain areas of the ocean and to monitor potential contamination if specific sites are identified... Assessing the degree of potential risks is nearly impossible without knowing the specific location and condition of weapons on the seabed... [T]he long-term risks of leaving located weapons in place is uncertain due to a lack of information on the effects of chemical agents in ocean waters, and the extent to which weapons may migrate along the seabed to shallower waters or wash ashore over time where they may present greater risks. Further, public disclosure of the location and types of weapons could present national security risks, in the event that individuals were to retrieve these weapons and use them for harmful purposes... Regardless of which option is desired, finding most of the weapons in the ocean to respond to potential risks would appear to be highly unlikely. The substantial challenge of accurately identifying the boundaries of former disposal areas without complete historical records, and the possibility that ocean currents may have moved weapons and contamination beyond these boundaries, makes the implementation of any response option difficult at best, if not impracticable in some cases." [See also 30 Oct 05]

24-26 May Off the Turkish coast in the Gulf of Antalya, an air-land and sea interdiction exercise takes place under the Proliferation Security Initiative (PSI). Exercise 'Anatolian Sun' is the twenty-second PSI exercise [see also 4-6 Apr]. On the final day, Turkish, US, French and Portuguese frigates block a ship carrying chemical weapons and escort it to Leylek Island. Military and civilian observers from a total of thirty-four countries attend the exercise.

25 May The US Army announces a 'record of decision' to implement an integrated Clinical and Biological Defense Program (CBDP) "to protect Soldiers, Sailors, Marines, and Airmen from evolving chemical and biological threats they may encounter on the battlefield". The measure includes a 'final programmatic environmental impact statement', which "evaluates the potential environmental impacts associated with the execution of the […] CBDP", and which "creates an overarching framework that will continue to ensure fully informed government decision making within the CBDP and will provide a single, up-to-date information resource for the public".

25 May The US National Research Council, Committee on Assessing Vulnerabilities Related to the Nation's Chemical Infrastructure releases its report on *Terrorism and the Chemical Infrastructure: Protecting People and Reducing Vulnerabilities*. The report makes a series of recommendations to the Department of Homeland Security, which requested the study as part of its research efforts following Hurricane Katrina. It concludes thus: "The threat from terrorism is not static, and it is not unreasonable to assume that terrorist tactics will evolve with emerging technologies designed to defeat their threat. Some strategies to address terrorism reduce the chance of a successful attack, some reduce the consequences of such an incident, and some relocate the vulnerability – that is, these strategies may reduce the chance of direct casualties, but still leave financial and cascading impacts. All of these factors must be taken into consideration when assessing vulnerabilities of the chemical infrastructure."

29 May The South African Anti-Corruption Forum releases *Apartheid Grand Corruption: Assessing the Scales of Crime in South Africa from 1976-1994* which, amongst other things, concludes that Project Coast, under the leadership of Wouter Basson [see also 9 Sep 05], was behind drugging and dumping Namibian Swapo fighters from helicopters over the Skeleton Coast. It also concludes that poisons, drugs and other chemical agents were manufactured for use against enemies. "They were to an extent a law unto themselves with little effective oversight over the way in which funds were spent", says the report. The Forum was established in 2001 and comprises ten members from each of the sectors of government, business and civil society. [See also 16 May 03]

29-30 May At OPCW headquarters, the fifth [see 6-8 Jun 05] regional meeting of eastern European CWC national authorities takes place. Attending are representatives from twenty-three national authorities of CWC parties in eastern Europe, including Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Poland, Moldova, Romania, Russia, Serbia and Montenegro, Slovakia, Slovenia, the former Yugoslav Republic of Macedonia, and Ukraine. In addition, representatives from the national authorities of Switzerland and Uzbekistan, as well as a representative of the European Chemical Industry Council participate. Participants discuss their individual experiences in monitoring and controlling transfers of scheduled chemicals, and give briefings on the status of the national application of the provisions of the CWC so as to comply with the Article VII action plan [see 20-24 Oct 03].

30 May In Tokyo, the High Court rejects an appeal against the death penalty by the former leader of the Aum Shinrikyo cult, Chizuo Matsumoto – also known as Shoko Asahara – for his involvement in the sarin gas attacks in Tokyo [see 20 Mar 95]. His lawyer Takeshi Matsui says a special appeal against the sentence will now be lodged with the Supreme Court. [See also 27 Mar]

30 May At UN headquarters, Secretary-General Kofi Annan transmits to the Security Council the twenty-fifth [see 28 Feb] quarterly report on the activities of UNMOVIC, for the period 1 March to 31 May 2006. Annexed to the report is an overview of the Iraqi chemical weapons programme. The overview was compiled further to a request by the Iraqi government for the disclosure of information concerning chemical weapons provided by the National Monitoring Directorate of Iraq to UNSCOM in 1996, as a necessary step for Iraq's accession to the CWC. The overview summarizes the early stages of the Iraqi chemical weapons programme starting in 1971 with the establishment of the Al-Rashad facility, and of the "large-scale" chemical weapons programme established in 1981. It then enunciates the quantities of chemical-warfare agents produced by Iraq between 1981 and 1991, as later declared by Iraq, i.e. around 3,850 tons of mustard gas, tabun, sarin and VX, of which 3,300 tons were weaponized in different types of aerial bombs, artillery munitions and missile warheads. It also states that during the period in question Iraq weaponized a total of some 130,000 chemical munitions, of which over 101,000 were used in combat

operations. The overview also discusses the subsequent verification and destruction by UNSCOM of Iraqi chemical-warfare agents and munitions.

31 May In Tokyo, the city's police force conduct an exercise at an underground railway station, the scenario of which is an attack by terrorists using chemical weapons. Around sixty personnel participate in the exercise, which includes training in rescuing passengers affected by an attack using sarin and in decontamination procedures relating thereto.

31 May The Japanese Defence Agency receives documents from the daughter of Seiichi Niiduma, a former officer of the Imperial Japanese Army, which reveal that, on its surrender in 1945, the Japanese Army destroyed evidence of its development biological weapons in China and that the US occupation authority subsequently exempted Japan from liability for having conducted human experiments in China. According to the Kyodo news agency, the 'Niiduma documents' include Niiduma's record of the Japanese Army ordering – on 15 August 1945 – that evidence of biological weapons having been developed at Unit 731 be destroyed. According to his records, the US authority told Niiduma and others "not to mix scientific research with war crimes". Niiduma's second daughter, Tomoe Obata, had forwarded the documents to a research institute of the Japanese Defence Agency.

31 May The US Government Accountability Office transmits to Congress *Cooperative Threat Reduction: DoD Needs More Reliable Data to Better Estimate the Cost and Schedule of the Shchuch'ye Facility*. The report assesses the progress and cost of the Shchuch'ye facility in Russia, and provides a review of Russia's chemdemil efforts in general. It states: "Disagreements between the United States and Russia over the types of munitions to destroy and how to destroy them, negotiations to resolve outstanding issues, restrictions on US funding, and difficulties with Russian subcontractors, among other factors, have delayed the Shchuch'ye facility's completion and increased its costs. Although progress has been made on the physical construction of the facility over the past 3 years, DoD [Department of Defense] continues to encounter numerous challenges that affect the completion of the Shchuch'ye CWDF. Furthermore, DoD currently cannot reliably estimate when the Shchuch'ye facility will be completed and at what cost. Parsons' EVM [Earned Value Management] system, implemented to help manage the schedule and cost of the Shchuch'ye project, contains unreliable and inaccurate data; thus, DoD cannot use it as a management tool. Even with significant international assistance at Shchuch'ye and other destruction facility sites, the Russian government will likely fail to destroy its entire chemical weapons stockpile by the CWC extended deadline of 2012... [W]e recommend that the Secretary of Defense direct DTRA [Defense Threat Reduction Agency], in conjunction with the US Army Corps of Engineers, to take the following three actions: ensure that Parsons' EVM system contains valid, reliable data and that the system reflects actual cost and schedule conditions; withhold a portion of Parsons' award fee until the EVM system produces reliable data; and require Parsons to perform an IBR [integrated baseline review] after awarding the contract for completing Building 101."

31 May The US Department of Commerce, Bureau of Industry and Security (BIS) announces that following a public consultation, it has decided not to include a number of contentious features in its regulatory requirements relating to "deemed exports", including a provision that access restrictions on foreign nationals should be based on an individual's country of birth as opposed to citizenship. Deputy Assistant Secretary of Commerce for Export Administration Matthew Borman says: "While the deemed export rule plays a crucial role in preventing foreign nationals from countries of concern from obtaining controlled US technology, BIS also recognizes that export controls must take into account the integral and critical contribution of foreign nationals to US fundamental research." The 'Advance Notice of Proposed Rulemaking: Revision and Clarification of Deemed Export Related Regulatory Requirements' was published in the Federal Register on 28 March 2005.

31 May From Winnipeg, Canada, Cangene Corporation announces that it has received $362 million from the US Department of Health and Human Services, under a five-year contract funded through Project Bioshield, to produce 200,000 doses of botulism antitoxin. The company had already commenced the development of the drug under a previous contract with the Centers for Disease Control and Prevention.

June In the UK, the Oxford Research Group publishes *Global Responses to Global Threats: Sustainable Security for the 21st Century*, which concludes, amongst other things, that "the biological weapon problem is still one for the future, but trends in genetic manipulation make this a matter for urgent action now". The Oxford Research Group describes itself as "an independent think tank which works to bring about positive change on issues of national and international security".

1 June At UN headquarters, the chairman of the WMD Commission, Hans Blix, transmits to UN Secretary-General Kofi Annan the Commission's *Weapons of Terror: Freeing the World of Nuclear, Biological and Chemical Arms*. The 231-page report is the result of two years' work by the fourteen-member commission. A spokesman for Annan says the report is "an important contribution to the debate on disarmament and non-proliferation" and urges the international community "to study the report and consider its recommendations". Commenting on the report, Blix says that although existing international treaties have shown weaknesses, a policy based on unilateralism and military actions has failed and has been costly in terms of lives and resources. The report offers a series of recommendations.

With regard to biological weapons it recommends:

"All states not yet party to the [BWC] should adhere to the Convention. The states parties to the Convention should launch a campaign to achieve universal adherence by the time of the Seventh Review Conference, to be held in 2011.

"To achieve universal adoption of national legislation and regulations to implement the [BWC] completely and effectively, the states parties should offer technical assistance and promote best-practice models of such legislation. As a part of the confidence-building process and to promote transparency and harmonization, all states parties should make annual biological weapon-related national declarations and make them public.

"States parties to the [BWC] should enhance the investigatory powers of the UN Secretary-General, ensuring that the Secretary-General's office can rely upon a regularly updated roster of experts and advice from the World Health Organization and a specialist unit, modelled on [UNMOVIC] to assist in investigating unusual outbreaks of disease and allegations of the use of biological weapons.

"States parties to the [BWC] should establish a standing secretariat to handle organizational and administrative matters related to the treaty, such as Review Conferences and

expert meetings.

"Governments should pursue public health surveillance to ensure effective monitoring of unusual outbreaks of disease and develop practical methods of coordinating international responses to any major event that might involve bioweapons. They should strengthen cooperation between civilian health and security-oriented authorities, nationally, regionally and worldwide, including in the framework of the new International Health Regulations of the World Health Organization [see 16-25 May 05]. Governments should also review their national biosafety and biosecurity measures to protect health and the environment from the release of biological and toxin materials. They should harmonize national biosecurity standards.

"At the Sixth Review Conference, in 2006, the states parties to the [BWC] should reaffirm common understandings reached at previous review conferences and take action on all subjects addressed at Convention meetings since 2003. They should also establish a work programme on additional topics for future meetings. States parties should ensure more frequent reassessment of the implications of scientific and technological developments and reaffirm that all undertakings under Article I of the [BWC] apply to such developments. This Review Conference should reaffirm that all developments in the life sciences fall within the scope of the Convention and that all developments in the life sciences for hostile purposes are prohibited by the Convention."

In relation to chemical weapons, the report recommends:

"States parties to the [CWC] must provide adequate resources to ensure that there are no undue delays in the agreed destruction of chemical weapon stockpiles.

"The [OPCW] and states parties to the [CWC] should continue their efforts to secure universal adherence to the Convention. States parties should fully implement the rules on trade and transfer of chemicals that are precursors to chemical-weapon agents. They should further develop regulations regarding the trade and transfer of chemicals that can be used to produce chemical weapons. The [OPCW] and states parties should continue to offer states positive incentives, including technical assistance, to join and implement the [CWC]. When providing such assistance or transferring relevant technologies, they should consider steps to ensure safe and responsible handling by the recipient.

"States parties to the [CWC] should confirm that, like the use of riot control agents, the use of toxic chemical agents for purposes of law enforcement is banned as a method of warfare. Accordingly, each state party must declare any such agent under Article III.

"States parties should ensure that the [OPCW] has the resources, experience and legal rights needed to carry out challenge inspections in a timely and effective manner, including for the taking of samples and removal of samples for testing.

"Through their domestic laws and policies, all states should prohibit the production, possession and use of toxic chemicals and technologies for purposes that are banned by the [CWC]. States should ensure security in and for chemical facilities through legislation and agreement with industry. States should also develop national means to monitor that security standards are met. States parties to the [CWC] should use the [OPCW] as a coordinating centre in the development of global standards for a chemical industry security culture. The Organisation should offer evaluation and security assistance at declared sites. States parties should also strengthen the capacity of the [OPCW] to provide practical assistance against chemical weapons, for instance detection equipment, alarm systems and medical antidotes."

1 June From Washington, DC, *Environment, Science & Technology* publishes research by a team of researchers that uses a mathematical model to predict the status of selected chemical warfare agents (CWAs) and toxic industrial chemicals (TICs) when planning for the disposal of contaminated debris in municipal solid waste (MSW) landfills. The motivation behind the research was to plan for the disposal of contaminated debris as a preparedness measure to prevent a chemical attack. The team, from the USA and Denmark, concluded that the degradation of CWAs and TICs occurs principally as a result of hydrolysis and gas-phase advection. Apart from CX and the TICs, none of the investigated compounds were predicted to persist in a landfill for more than five years. The climate was determined to have little impact on CWAs or TICs, and biodegradability was determined as only being important in relation to compounds with significant hydrolysis half-lives.

2 June The Saratov parliament will, in a few days, file a lawsuit in the Russian Supreme Court against the federal government for extending, eight months previously, the operating life of the Gorny chemdemil facility [see 23 Dec 05] to 2012, so reports the Moscow daily *Nezavisimaya Gazeta*. In its petition, the Saratov parliament asserts that the decision to extend the period of operations at the plant in Gorny was taken by the federal government without having first consulted the parliament of Saratov Oblast, as was required under a law of 1997. Oblast Duma Vice-Speaker Vyacheslav Maltsev says: "The plant can continue operating, but only as a plant. We do not want it to be used for the destruction of chemical weapons... The damaging effects of this facility on these people will serve as the grounds for this." He adds that compensation is also being sought for the residents of Gorny.

2 June In Forest Gate, London, police wearing protective clothing raid a house in search of an improvised chemical device as a "precautionary measure" in an operation that Deputy Assistant Commissioner Peter Clark says was planned in response to "specific intelligence". One of the two brothers who were arrested at the scene, Mohammed Abdul Kahar, is hospitalized after being shot in the shoulder by police, but is soon discharged and taken for questioning. *The* (London) *Sunday Telegraph* reports that intelligence obtained by MI5 suggested that terrorists were trying to acquire material via the internet which could be used to develop a nerve gas capable of killing and injuring thousands of people. It also reports that a team of government scientists at Porton Down is looking for evidence of a "viable weapon" or traces of it. A week later, with the police search not having uncovered any evidence of a chemical device, both men are released without charge. The Metropolitan police issue a statement which recognizes that their actions had caused "inconvenience" but their operation to find a chemical device would "continue to be developed".

3 June In Podgorica, at a special session of parliament, Montenegro, recognizing the result of a referendum two weeks earlier, formally declares its independence from its union with Serbia. Two days later, in Belgrade, the Serbian parliament accepts the declaration. Under the constitutional charter of the union, Serbia now inherits membership of all international institutions from the former union of Serbia and Montenegro, including the BWC and CWC. Montenegro must now apply for membership in its own right.

4-9 June In Zemianske Kostol'any, Slovak Republic, there is a Live Agents Training (LAT) course for the central Asian countries, which is jointly organized by the Slovak

government and the OPCW and financially supported by the Slovak and Norwegian governments. The course provides training to fifteen participants from Azerbaijan, Kazakhstan, Kyrgyzstan and Uzbekistan in matters such as detection and reconnaissance, personal and equipment decontamination, protective methods and protective methods in case of use of chemical weapons and sampling of chemical warfare agents.

6-7 June In Lisbon, there is an advanced course for personnel from Lusophone states involved in the implementation of the CWC, which is jointly organized by the Portuguese national authority and the OPCW. Cape Verde, Mozambique, and Sao Tomé and Principe are represented, however, Timor-Leste is unable to participate. In addition, representatives from Angola and Guinea-Bissau, neither of which are parties to the Convention, also attend. Topics addressed include the measures that need to be taken to comply with the national implementation action plan, e.g., the establishment of a national authority and the enactment of national legislation.

7 June In Iraq, Abu Musab al-Zarqawi and seven associates are killed following an air-strike and raid by US forces on a safe house in a wooded area near Baquba. The Jordanian-born Zarqawi, on whose head the US had issued a $25 million bounty for being the leading figure in a series of terrorist acts, was recently found guilty by a Jordanian court of having planned an attack using a chemical weapon on Amman [see 15 Feb].

7 June In the UK House of Commons, a member of the public causes an anthrax scare after throwing white powder on the floor of the public lobby and shouting "you could all be dead, you could all be dead". A spokeswoman for the House of Commons says: "The Metropolitan Police specialist team has investigated the area. As a precaution, the Palace of Westminster was locked down for the duration of the incident until the powder had been investigated and confirmed as harmless." Two years previously, Prime Minister Tony Blair was struck by condoms containing purple flour, which were thrown from the public gallery, as he was addressing members of parliament. On that occasion, a campaign group known as Fathers-4-Justice claimed responsibility.

7 June The US Food and Drug Administration (FDA) issues an 'interim final rule' to "establish a new exception from the general requirements for informed consent, to permit the use of investigational *in vitro* diagnostic devices to identify chemical, biological, radiological, or nuclear agents without informed consent in certain circumstances. The FDA states that the purpose of the rule is to provide for a quick detection of any chemical, biological, radiological or nuclear agent involved in a potential attack or disease outbreak, because obtaining informed consent in such cases could introduce "unacceptable delays". The rule enters into force with immediate effect, but will remain open to public comment for one month.

7 June In Washington, DC, former UNMOVIC Executive Chairman Hans Blix gives a briefing on the WMD Commission report *Weapons of Terror: Freeing the World of Nuclear, Biological and Chemical Arms* [see 1 Jun]. The briefing is sponsored by the Arms Control Association in cooperation with the Swedish embassy and the American Bar Association. Also making presentations on the report are: Senior Advisor, Center for Strategic and International Studies Robert Einhorn; Senior Fellow, Center for Nonproliferation Studies Jonathan Tucker; and Executive Director, Lawyers' Committee on Nuclear Policy John Burroughs.

9 June In Oregon, the Umatilla chemdemil facility completes operations to destroy its sarin-filled bombs. According to OregonLive.com more than 2,400 sarin-filled munitions had been stored at the facility. [See also 24 Aug 05]

11 June The *Washington Post* reports on the arrest last autumn by Pakistani police of "arguably al-Qaeda's most influential strategist since 9/11" who "has been at the center of al-Qaeda's efforts to develop WMD capabilities since the late 1990s". The *Post* states that, according to the US authorities, Mustafa Setmariam Nasar helped al-Qaeda's WMD chief, Abu Khabab al-Masri, to instruct recruits on the use of WMD at the Derunta training camp in Afghanistan before 9/11. In a web posting in December 2004 he wrote: "I feel sorry that there were no weapons of mass destruction in the planes that attacked New York and Washington on 9/11... An attack on the United States with WMD has become necessary [...] by means of decisive strategic operations with weapons of mass destruction including nuclear, chemical or biological weapons." In his book *Arab Afghans*, published in 2004 and serialized by the London daily *Asharq al Awsat*, Setmariam said that "Strategic Operations Brigades" should be established and given "very high-level financial capabilities" to acquire an "operational knowledge and potential to use WMD". In November 2004, the US authorities offered a $5 million reward for Setmariam's capture or killing.

12 June In Luxembourg, the Council of the European Union adopts a *Joint Action in Support of the Implementation of United Nations Security Council Resolution 1540* [see 28 Apr 04] *and in the Framework of the Implementation of the EU Strategy against the Proliferation of Weapons of Mass Destruction*. Under the Joint Action the Council is to finance projects (as set out in an annex) aimed at "raising awareness" of the requirements related to resolution 1540 and "the importance of this international non-proliferation instrument". It is also aimed at "contributing to strengthening third States' national administration capacities" in the Asia-Pacific, Africa and Latin America-Caribbean so as to facilitate them to draft national reports on the implementation of resolution 1540. In total EUR 195,000 will be available to implement the projects.

12 June In the UK, the Crown Prosecution Service (CPS) announces that, following "a re-review of evidence", there is insufficient evidence to bring charges against scientists involved in conducting tests on hundreds of human volunteers at the Ministry of Defence research establishment, Porton Down, between 1939 and 1989. The CPS undertook a review after an inquest into the death of Ronald Maddison - who died after participating as a volunteer in 1953 - reached a verdict of 'unlawful killing' [see 15 Nov 04]. Senior Crown Prosecutor Kate Leonard says: "When I made the original decision not to prosecute in July 2003 there was one case outstanding where I was awaiting further evidence from the police. The final information in that case was received in November 2004. I decided not to make a decision in that case until I had considered the evidence from the inquest. Having done that, my decision is there is insufficient evidence in relation to that case as well." [See also 13 Feb]

12 June The US Department of Commerce Bureau of Industry and Security (BIS) issues a 'final rule' which amends the Export Administration Regulations so as to ex-

pand export controls on certain 'select agents and toxins' that the Centers for Disease Control and Prevention (CDC) and the Animal and Plant Health Inspection Service (APHIS) have determined to have the potential to pose a severe threat to human, animal and plant life and to certain sectors of the US economy. The rule amends the Commerce Control List (CCL) by adding twenty-three CDC and/or APHIS select agents and toxins (including associated genetic elements, recombinant nucleic acids, and recombinant organisms) not previously specified on the CCL. The rule states: "Although none of the 23 agents and toxins (and associated genetic elements, recombinant nucleic acids, and recombinant organisms) are currently identified on any of the AG [Australia Group] Common Control Lists, the United States intends to work in cooperation with the governments of other AG participating countries to consider the addition of these items to the appropriate AG control lists." The rule enters into force with immediate effect. [See also 5 Aug 05]

12-15 June In Paris, the Australia Group convenes for its annual [see 18-21 Apr 05] plenary meeting. A press release issued by the Group following the meeting states: "The plenary recognised the role of niobium as an increasingly key element in chemical manufacturing equipment suitable for the production of chemical weapons, and agreed to introduce controls on such equipment. Several biological agents capable of being used to produce biological weapons were also added to the control lists... Participants undertook to take a common approach in controlling exports to distributors and agreed to hold a seminar to discuss best-practice measures to control brokering activities. Tighter controls on the activities of such intermediaries will help to combat increasingly sophisticated procurement methods used by proliferators, including terrorists. Participants also agreed to explore the possibility of 'labelling' controlled equipment to help address the challenge of managing trade in second hand equipment... The Australia Group welcomed the renewed mandate of the Committee established by UN Security Council Resolution 1540 [see 27 Apr] and affirmed the Group's commitment to support the Committee in promoting robust global implementation of export control systems."

12-16 June In Seoul, a CWC assistance and protection course – which is jointly organized by the government of South Korea and the OPCW – takes place. It is attended by twenty-five participants from the following sixteen CWC parties: Bangladesh, Bhutan, Brunei Darussalam, China, India, Indonesia, Iran, Jordan, Malaysia, Mongolia, Oman, Pakistan, Philippines, South Korea, Saudi Arabia, and Uzbekistan. The course provides training in planning and building a support team in civil protection, civil defence, decontamination operations in contaminated areas, as well as in appropriate responses and countermeasures in the event of incidents involving chemical-warfare agents.

13 June In Arkansas, the Army commences the chemdemil of munitions, most of which were recovered in the 1980s during environmental remediation, at Pine Bluff Arsenal. Under its Non-Stockpile Chemical Materiel Project the Army plans to use its transportable Explosive Destruction System to destroy the munitions, which are not included in the facility's stockpile. Munitions recovered include 4.2-inch mortars and WWII-era German Traktor rockets.

Days earlier, the facility started destroying 291 drums of diisopropylaminoethyl methylphosphonite (QL) – an operation which is expected to take six to eight weeks to complete – which, according to the *Arkansas Democrat-Gazette*, is all that remains on the US inventory of binary precursor chemicals [see 5 Jan 05].

14 June The Swedish Institute of International Affairs (SIAA), in conjunction with the Institute of World Economy and International Relations (IMEMO) in Moscow, releases *Strategic Study on Bioterrorism*. The study addresses biothreat and response scenarios, risk assessment, modern diagnostic techniques and methods to strengthen capabilities for early detection, surveillance and responses to outbreaks of disease. Technical issues and the political, social and psychological aspects of bioterrorism are also discussed. The authors of the study, which include twenty "high level bioexperts from the Russian Federation and other European countries", compile a list of thirteen recommendations, e.g., to secure and consolidate dangerous microorganisms in certified facilities, or destroy them. The Swedish Defence Research Institute and the Center for Strategic and International Studies provided financial assistance for the study.

14 June In Brussels, the Council of the European Union releases a *Six-monthly Progress Report on the Implementation of the EU Strategy against the Proliferation of Weapons of Mass Destruction*. Regarding chemical weapons, it states: "[*The Council Joint Action on Support for OPCW Activities* {see 12 Dec 05}] has contributed to increasing the number of Member States of the OPCW and to promote national legislative activities leading to full compliance and enhanced national implementation…" Regarding biological weapons, it refers to the recent adoption by the Council of the *Joint Action in Support of the Biological and Toxin Weapons Convention* [see 27 Feb], and the *Common Position Relating to the 2006 Review Conference of the Biological and Toxin Weapons Convention* [see 20 Mar].

14 June *The* (London) *Guardian* reports that it has succeeded in obtaining a short sequence of smallpox DNA, containing "three small modifications" that rendered it harmless, over the Internet. It reports that the company supplying the DNA, VH Bio Ltd, has since conceded that it was not aware that it was sending out a sequence of modified smallpox DNA. *The Guardian* states that it only had to use an invented company name together with a mobile telephone number and a free email address to place the order. VH Bio Ltd then contacted the newspaper by telephone to check whether the address provided was a residential address. The package, which contained a 78-letter sequence of DNA was delivered by post to a flat in north London at a cost of £33.08. Alan Volkers, the chairman of VH Bio Ltd, says the company does not normally screen DNA orders that are less than 100 letters in length. After discovering that it had supplied a small sequence of smallpox DNA, the company carried out checks on two European databases and a 30-minute check using scanning software, but neither of them raised any alert. Volkers says that the company processes several hundred short-sequence orders per day. "It would be impossible to run them all through [standard scanning software] and operate successfully", he says. "There are no regulations in place which require us to carry out background checks on potential customers."

14 June The US Institute of Medicine publishes *Hospital-Based Emergency Care: At the Breaking Point*, which concludes that emergency departments are not prepared to deal with a crisis, whether a pandemic, terrorist attack or natural disaster. The Committee on the Future Emergency Care in the United States Health System compiled the report. Whilst

it recognizes that funding specifically for bioterrorism preparedness has been prioritized to the detriment of other areas of concern, the report nevertheless recommends that Congress "significantly increase total disaster preparedness funding in FY 2007 for hospital emergency preparedness in [...] enhancing the availability of decontamination showers, standby ICU capacity; negative pressure rooms, and appropriate personal protective equipment". The Institute also releases *Emergency Medical Services at the Crossroads,* and *Emergency Care for Children: Growing Pains*, which accompany the above report.

14 June In Atlanta, at a conference organized by the Centers for Disease Control and Prevention, the mayor of New York City criticizes the federal government for reducing the city's antiterrorism funding. Michael Bloomberg says: "I really don't know how anyone can justify a distribution of bioterrorism funds that awards $8.20 per person to North Dakota when New York City gets less than $3 per person... The only rational system for apportioning these funds ought to be population density and risk. Unfortunately, these clearly are not yardsticks that are being used." He adds that forty-one states and cities received more per-capita funding from the federal Health Resources and Services Administration than New York.

15 June The US Federal Bureau of Investigation (FBI) has released 709 "often heavily redacted" parts of its file on *Bacteriological Warfare in the United States* covering the period 1941 through 1950, while withholding 1,074 pages, some of which will be referred to other agencies for review, so reports The Memory Hole.

16 June In Moscow, US Ambassador to Russia William J. Burns and Russian Deputy Foreign Minister Sergei Kislyak sign a protocol to extend for a period of seven years the *Agreement between the United States of America and the Russian Federation Concerning the Safe and Secure Transportation, Storage and Destruction of Weapons and the Prevention of Weapons Proliferation* [see 17 Jun 92] *as amended* [see 16 Jun 99]. According to the *Washington Post*, the extension had been delayed for years owing, primarily, to Russian objections that under the original agreement it was made responsible for any accidents caused by US contractors, whether negligent or otherwise. Though the protocol maintains the original language with regard to current projects, it addresses Russian concerns with regard to future projects.

17 June In the Solomon Islands, a team from the US Army begin an operation to destroy four munitions believed to contain mustard discovered on Mbanika Island, by using controlled explosions. According to the Australian Associated Press, the munitions are believed to have been abandoned by US forces during the Second World War after they defeated Japanese forces there between 1942-43.

Four days later, leader of the team Tony Skinner confirms the destruction of the munitions, adding that although they were suspicious that mustard gas was present in some of the munitions, they found no such evidence following their destruction.

18 June From the USA, *Time* magazine publishes excerpts of Ron Suskind's forthcoming book, *The One Percent Doctrine: Deep Inside America's Pursuit of its Enemies Since 9/11*, which describes the discovery by the Central Intelligence Agency of an aborted 2003 plot to attack the New York City underground railway network using hydrogen cyanide. According to Suskind, formerly a reporter for the *Wall Street Journal*, in January 2003 a Saudi radical, Yusef al-Ayeri, told Ayman al-Zawahiri, al-Qa'ida's second-in-command, that an al-Qa'ida cell had travelled to the USA via North Africa in the Autumn of 2002 and had thoroughly assessed the locations for the attacks. Several al-Mubtakkars – said to be delivery systems that contain sodium cyanide and hydrogen and which discharge hydrogen cyanide – were to have been placed in the railway carriages and at other strategic locations and then activated remotely. Suskind says that the attack was just forty-five days from execution when al-Zawahiri called it off for reasons unknown. It is not clear from the excerpts whether the alleged cell actually managed to obtain functional al-Mubtakkar devices.

20 June In Tbilisi, Georgian Deputy Minister of Defence Mamuka Kudava and Director of the US Cooperative Threat Reduction Program, Department of Defense John T. Byrd sign a 'Joint Requirement and Implementation Plan of the Biological Threat Reduction Programme (BTRP) in Georgia for 2006'. According to the Georgian Prime-News agency, the programme envisages the establishment of the Central Reference Laboratory in Alekseevka and the creation of the Threat Agent Detection and Response System.

21 June US Director of National Intelligence John Negroponte transmits to Chairman of the House Committee on Intelligence Peter Hoekstra a summary providing "an unclassified overview of chemical munitions recovered in Iraq since May 2004". The summary reads thus: "Since 2003 Coalition forces have recovered approximately 500 weapons munitions which contain degraded mustard or sarin nerve agent… Despite many efforts to locate and destroy Iraq's pre-Gulf War chemical munitions filled and unfilled pre-Gulf War chemical munitions are assessed to still exist… Pre-Gulf War Iraqi chemical weapons could be sold on the black market. Use of these weapons by terrorists or insurgent groups would have implications for Coalition forces in Iraq. The possibility of use outside Iraq cannot be ruled out… The most likely munitions remaining are sarin and mustard-filled projectiles… The purity of the agent inside the munitions depends on many factors, including the manufacturing process, potential additives, and environmental storage conditions. While agents degrade over time, chemical warfare agents remain hazardous and potentially lethal… It has been reported in open press that insurgents and Iraqi groups desire to acquire and use chemical weapons."

21 June In the US Senate, before the Committee on Environment and Public Works, Director of Natural Resources and Environment, Government Accountability Office (GAO), John B. Stephenson, testifies on *Homeland Security: DHS Is Addressing Security at Chemical Facilities, but Additional Authority Is Needed*. The statement is based on the earlier GAO report *Homeland Security: DHS Is Taking Steps to Enhance Security at Chemical Facilities, but Additional Authority Is Needed*.

21 June From Washington, DC, the Center for Arms Control and Nonproliferation (CACNP) releases an analysis of *Federal Funding for Biological Weapons Prevention and Defense, Fiscal Years 2001 to 2007*, which states that the USA has spent or distributed more than $36 billion on biodefence since 2001, an amount expected to increase to $44 billion in FY 2007. The proposal to increase spending by $8 billion for the next fiscal year represents an increase of $120 million from spending approved by Congress for FY 2006. According to CACNP the majority of funding – more than $26 billion through FY 2007 – has been spent on countermeasures against pathogens and protective gear; $3 billion has likely

been directed towards upgrading medical monitoring and environmental detection of weaponized agents; and $7.5 billion designated for preparing state and local agencies and hospitals for an attack. "Only 2 per cent of all federal bioweapons-related funding has been devoted to efforts to prevent the development, acquisition, and use of biological weapons by states and terrorists and other non-state actors," the CACNP says.

21-22 June In Jordan, there is a conference – *Petra II: A World in Danger* – covering four themes: non-proliferation of weapons of mass destruction, education, health and poverty, and economic empowerment. Participating in the meeting – which is jointly organized by the King Abdullah II Fund for Development and the Elie Wiesel Foundation for Humanity – are government officials, Nobel laureates, and celebrities.

21-25 June In Middlebury, Vermont, the Summer Nonproliferation Institute is scheduled to convene for the fourth time in as many years. Its purpose is to train persons interested in developing courses dealing with the proliferation of chemical, biological or nuclear weapons, and related nonproliferation policies. The event is jointly organized by Middlebury College and the Monterey Institute Center for Nonproliferation Studies.

22 June In the US House of Representatives, the Homeland Security Subcommittee on Prevention of Nuclear and Biological Attack holds a hearing on *Reducing Nuclear and Biological Threats at the Source*. Among those testifying are Acting Assistant Secretary, International Security and Nonproliferation, Department of State Francis C. Record; Principal Deputy Administrator, National Nuclear Security Administration, Department of Energy Jerry Paul; and Deputy Assistant Secretary, International Security Policy, Department of Defense Jack David.

22 June In Washington, DC, during a panel discussion on the same theme, the Center for American Progress releases *Biosecurity: A Comprehensive Action Plan*. The report contains a series of recommendations that relate to: preventing the misuse of the life sciences; strengthening biological disarmament measures; timely detection of outbreaks; rapid containment of outbreaks; reforming the drug development process; and rationalizing biodefense spending.

22 June In Virginia, more than four thousand federal, state and local officials have, during the past week, participated in a three-day series of national terrorism preparedness and response table-top exercises sponsored by the Department of Homeland Security, so reports GovExec.com. The 'TOPOFF 4 Command Post Exercise', the fourth in a series of such exercises [see 4-8 Apr 05], involved the scenario of terrorists smuggling two weapons of mass destruction into the USA with a view to attacking Oregon and Washington, DC. According to the *Post*, the cost of staging the exercise was $3.5 million.

22-23 June At the University of Rochester, New York, a symposium – for scientists in the fields of mathematics, statistics, immunology and infectious diseases – which includes a discussion on whether the flu virus could be modified and used as a biological weapon, is scheduled to take place.

23 June In Warsaw, delegations from sixty-six countries meet to review the first three years of the US-led Proliferation Security Initiative and to discuss future goals [see also 31 May 05]. In a speech, US Undersecretary of State for Arms Control and International Security Robert Joseph says: "Between April 2005 and April 2006, the United States worked successfully with multiple PSI partners in Europe, Asia and the Middle East on roughly two dozen separate occasions to prevent transfers of equipment and materials to WMD and missile programs in countries of concern." Polish Foreign Minister Anna Fotyga says that since 2003 "PSI participants have greatly improved their abilities to interdict suspected shipments".

25 June From Gaza, the Fatah-affiliated al-Aqsa Martyrs' Brigade announces that it has manufactured twenty kinds of chemical and biological weapons following three years of continuing effort to do so. In a statement sent to the Palestinian Ramattan news agency the group states: "We tell Olmert and Amir Peretz: Your threats to invade Gaza do not intimidate us. You sent us a warning of killings and invasions, and we respond by saying that we will surprise you with new weapons you haven't seen before the moment the first soldier sets his foot on Gaza soil... [W]e have managed to produce more than 20 kinds of chemical and biological weapons following a three-year effort." The statement adds that the weapons "will be carried by our long-range rockets to shell Israeli settlements in the event Israel invades the Gaza Strip".

Four days later, The Media Online reports the group as having stated that it fired a missile equipped with a chemical warhead at Israeli troops earlier in the day, however, an unidentified spokesman for the Israeli Army says that it detected no such weapon and no such weapon had been reported as having been fired. Also, in an interview with Al Jazeera, al-Aqsa Martyrs Brigades spokesman Abu-Qusay says: "At dawn today we fired a rocket carrying a biological head that landed on Sederot."

25 June The *Washington Post* reports a former head of the Central Intelligence Agency (CIA) European operations division as saying that senior officials repeatedly ignored his warnings about a source for much of the intelligence on prewar Iraq's alleged WMD programmes [see also Jan 06]. Tyler Drumheller says that when he warned his superiors in late 2002 that information coming from the source – an Iraqi defector, code-named Curveball [see 20 Nov 05] – was unreliable, it led to "a series of the most contentious meetings" he had ever seen, and that analysts with the CIA's Center for Weapons Intelligence, Nonproliferation and Arms Control believed Curveball's descriptions included too much detail to have been faked. Former Secretary of State Colin Powell relied on Curveball's claims when he presented evidence of Iraqi mobile biological weapons laboratories during a presentation to the UN Security Council [see 5 Feb 03]. Drumheller says that the night before Powell's speech he [Drumheller] said to the former Director of Central Intelligence, George Tenet, "Hey, boss, you're not going to use that stuff in the speech..? There are real problems with that", but Tenet told him not to worry. [See also 23 Apr 06]

26 June Russia releases a white paper on *The Russian Federation and Nonproliferation of Weapons of Mass Destruction and Delivery Systems: Threats, Assessments, Problems and Solutions*. The document states that its purpose is to present the Russian view of key problems in this sphere, to elucidate possible methods for their solution, to draw the attention of experts and the general public to the steps that have been taken and will be taken by the Russian Federation in order to combat the proliferation of WMD and delivery systems. It lists the following factors as conducive to the proliferation of chemical wepons: "[T]he relative simplicity of the technologies for producing toxic substances given the current level of development of the chemical industry; the possibility

of the legal acquisition of 'dual-use' technologies, equipment, and materials suitable for CW production; the economic profitability and relative simplicity of programs to develop CW in comparison with other forms of WMD, as well as the difficulty of detecting such programs." The paper says that factors that could motivate states not parties to the BWC to become interested in biological weapons are: "[T]he high economic profitability and simplicity of implementing a BW program compared to other WMD programs; the dual use of technologies, equipment, and materials suitable for the creation of BW (i.e. the possibility of their use for both civilian and military purposes), and the difficulty of detecting relevant infrastructure; the possibility of covert military programs in the BW sphere given the lack of a clear distinction between offensive and defensive activities."

The paper states that Russian "foreign policy priorities" with regard to the non-proliferation of chemical and biological weapons are: "[S]trengthening international institutions (organizations) responsible for issues related to the nonproliferation of chemical and biological weapons, including by strengthening the regimes covering the exports (imports) of goods; the complete elimination of chemical weapons stockpiles and the industrial base for their production, in addition to making it impossible to renew such production; harmonizing national legislation and standardizing the approaches of all states with the generally accepted standards of international law." The document says that at the national level, Russia is carrying out the following "basic measures": "[A]s a priority measure, chemical weapons are being destroyed (to shorten the time during which chemical weapons will remain potentially vulnerable to theft or attack); in order to rule out the possibility of the proliferation of CW and biological materials, they are provided with reliable physical protection, the corresponding normative legal base has been created and is being refined and harmonized with international treaties; criminal responsibility has been established for violations of the CWC and BWC; mechanisms and procedures have been created to support comprehensive and effective legal cooperation between states; export controls have been established that cover dual-use chemicals, biological materials, equipment and technologies, and criminal and administrative responsibility has been introduced for foreign trade violations involving them."

The document concludes: "[I]t remains urgent that both international laws related to nonproliferation and Russian Federation legislation in the area of export control be improved in order more effectively to combat terrorism and carry out the provisions of UNSC Resolution 1540 [see 28 Apr 04] on the nonproliferation of WMD. In addition, a regularly scheduled in-depth analysis must be made of this kind of legislation, and coordinated responses have to be worked out on both the national and international level. The constant monitoring of trends in the production of WMD and delivery systems by some states, as well as attempts by terrorist and extremist groups to gain access to such weapons and their components, remains urgent… A basic component of Russian national security policy is the strengthening of relations with close neighbors, especially CIS nations. Deepening of trade ties is an important aspect of this policy. As a result, export control cooperation aimed at removing administrative barriers to mutual commerce in high-tech is an important goal. Of considerable significance is the enhancement of the effectiveness of controls over 'sensitive' exports beyond the borders of the CIS states. In this regard, the gradual implementation of the Program approved by the President of the Russian Federation for Long-Term Cooperation between the Russian Federation and CIS Nations in the Area of Nonproliferation of WMD and Delivery Systems, and further development of cooperation with partners in the Eurasian Economic Community and the Single Economic Space, is a strategic objective."

26 June In Tripoli, Libyan Secretary for European Affairs Abdullati Obidi and UK Minister of State for the Foreign Office Kim Howells sign an agreement under which the UK pledges to seek UN Security Council action in the event that Libya is attacked with chemical or biological weapons. The agreement also sets out a joint pledge to fight the proliferation of weapons of mass destruction. "I believe that this mutual commitment will serve as an example to other states that there is a route back into the international community and the advantages of Libya's WMD decision," says Howells. Libya renounced its weapons of mass destruction programme three years ago [see 19 Dec 03].

26 June The US Government Accountability Office (GAO) transmits to Congress *Export Controls: Improvements to Commerce's Dual-Use System Needed to Ensure Protection of US Interests in the Post-9/11 Environment*. The report examines the dual-use export-control system of the Department of Commerce Bureau of Industry and Security (BIS), with particular regard to evaluations of, and changes to, the system; screening of export license applications against its watchlist; and actions to correct weaknesses previously identified by GAO. It states: "The effectiveness of BIS's watchlist screening process is questionable. BIS has not ensured that certain parties of concern appear on its list of approximately 50,000 names and that all parties on license applications are screened…These omissions in the watchlist are attributable to a lack of specific criteria as to who should be on the watchlist and BIS's lack of regular reviews to determine whether parties are missing from the list… While BIS has implemented several GAO recommendations made over the last 5 years, it has not implemented others. BIS has not addressed recommendations related to ensuring that export controls on sensitive items protect US interests and are consistent with US law." The report makes a series of recommendations to the Secretary of the Department of Commerce to use available data and develop performance measures in consultation with other agencies to measure the efficacy of the dual-use export control system; to correct omissions in the watchlist and weaknesses in the screening process; and to address the GAO's previous unimplemented recommendations. The GAO states that the Department of Commerce, which was provided with a draft of the report, has not addressed the recommendations and disagrees with the report's findings and characterizations of the dual-use export control system.

26 June The US Congressional Research Service releases a report on *Nonproliferation and Threat Reduction Assistance: US Programs in the Former Soviet Union*. The report reviews the history of the US non-proliferation and threat reduction assistance programmes since they began in 1991, and summarizes issues subsequently raised in reports by analysts and in congressional debates relating thereto. It also provides a summary of many of the programme areas and projects supported by US funding.

26 June In Frederick, Maryland, construction commences of the National Biodefense Analysis and Countermeasures Center (NBACC), the first government facility to focus solely on biodefence, so reports the Associated Press. The Center, which will be under the control of the Department of Homeland Security, will study biological threat vulnerabilities and consequences, and conduct forensic analyses of evidence. It will incorporate the National Bioforensic Analysis

Center and the Biological Threat Characterization Center, which are currently operating at other locations. The Agricultural Biodefense Center at the Plum Island Animal Disease Center in New York and the Biodefense Knowledge Center at the Lawrence Livermore National Laboratory in California will come under the Center's remit, but will not be incorporated into the new facility. The Center, which is scheduled to open in 2008 at a cost of $128 million, will employ around 120 persons on a 160,000 square feet site.

26 June In Monterey, California, a panel discussion on the subject of *Biological Threats to Global Health and Security* is scheduled to take place. Leading the discussion, which is co-hosted by the Commonwealth Club of California and the Monterey Institute of International Studies, will be: former Senator and co-chairman of the Nuclear Threat Initiative Sam Nunn; Senior Adviser, Office of Secretary of Defense for Cooperative Threat Reduction Policy Andrew Weber; Director of the Chemical and Biological Weapons Nonproliferation Program, Monterey Institute Center for Nonproliferation Studies Raymond Zilinskas; and Director of the Global Health and Security Initiative, Nuclear Threat Initiative Mark Smolinski.

26-30 June In Spiez, Switzerland, the ninth [see 18-22 Apr 05] CWC Chief Instructor Training Programme (CITPRO IX) takes place at the NBC Training Centre. The course, which is jointly organized by the Swiss government and the OPCW, is made possible as a result of an offer made by Switzerland under Article X of the CWC. It provides training in civil chemical-weapons protection and in detection and decontamination to thirty chief instructors from OPCW Member States.

28 June In Mahabad, Iran, Foreign Ministry spokesman Hamid Reza Asefi says that 110 instances when Iraq used chemical weapons against Iran during 1980 to 1988 have been registered with the United Nations. Asefi makes his comments to journalists a day before a ceremony – held simultaneously in Tehran, Marivan and Sardasht – commemorating the victims of the Iraqi chemical attack on Sardasht [see 27 Apr].

28 June The *Tehran Times* runs an article that says "reports published by the Arab media indicate that death squads connected with the Israeli intelligence agency Mossad have assassinated more than 2500 Iraqi scientists over the past three years". The majority of those killed were specialists in nuclear physics. The *Times* says that, according to documents compiled by "the Iraqi Human Rights Committee", after the US occupation of Iraq, elements from the Mossad entered the country posing as technical and service company employees, and as a first step, started to collect information about young Iraqi physicists. Then, with the help of remnants of the former Iraqi regime, Mossad agents set ambushes and carried out the assassinations. Israel has named the operation "curettage". [See also 6 May]

28 June In Moscow, a meeting of the 'Biomak' consortium, which incorporates major companies and research facilities in the Russian bioindustry, takes place at the Ministry of Education and Science. The Consortium came into being five years ago as a result of an agreement signed between the Ministry of Industry, Science and Technology; the Ministry of Health; the Ministry of Agriculture; and the Ministry of Education. In his presentation, Chairman of the State Duma Committee on CIS Affairs and Relations with Compatriots Andrei Kokoshin refers to the role of 'Biomak' and the public-private partnership in ensuring Russian biosecurity.

29 June In Novosibirsk, Russia, the former director of the State Research Center of Virology and Biotechnology (Vektor) during the 1970s and 1980s, Lev Stepanovich Sandakhchiev [see 24 Sep 04] dies from heart disease at the age of sixty-nine. Following the demise of the Soviet Union, Sandakhchiev supervised the conversion of Vektor into a civilian medical research facility. Former Chief Scientist and First Deputy Director of Biopreparat Ken Alibek, who worked with Sandakhchiev before defecting to the USA [see 8 Oct 92], says: "He should be remembered not for his bioweapons work but for his contributions to world health."

29 June In the US House of Representatives, the Armed Services Committee holds a hearing on *Reports of Weapons of Mass Destruction in Iraq*. Testifying are: Director of the Defense Intelligence Agency Michael Maples; Senior Fellow at the Potomac Institute and former head of the Iraq Survey Group David Kay; Frank Gaffney from the Center for Security Policy; and former UNSCOM inspector Terrence Taylor. The purpose of the hearing is to investigate recent revelations about the possible existence of weapons of mass destruction in Iraq [see 21 Jun].

29-30 June In Santa Marta, Colombia, there is the second regional seminar on the role of the chemical industry in the implementation of the CWC in Latin America and the Caribbean. Representatives of national authorities and industry from twenty-two parties to the Convention participate in the seminar, which is jointly organized by the government of Colombia and the OPCW. It serves as a platform for participants to discuss issues relating to the practical implementation of the CWC, including its international transfers regime, its application in chemical import and export, and the role of customs in implementing its provisions with a view to ensuring that toxic chemicals are used for legitimate purposes only.

30 June In Moscow, Russian Deputy Minister of Foreign Affairs Sergei Kislyak says, at a press conference, that Russia is considering the possibility of participating in the Australia Group. He states that Russia's legislation on the control of chemical and biological materials may be more extensive than that required under the Australia Group.

30 June Russian Defence Minister and Deputy Prime Minister Sergei Ivanov says "all the developed countries and also certain developing countries are able to develop biological and chemical weapons of mass destruction" and that "25 countries of the world possess the means for the delivery of such weapons or are ready to develop them in the very near future". Speaking at an RIA Novosti news conference in Moscow, Ivanov also criticizes the slow co-ordination of non-proliferation issues at international forums, referring, *inter alia*, to the failure to agree on a verification mechanism for the BWC. "In recent years, we have witnessed increasingly politicized approaches to the fight against the proliferation of WMD demonstrated by some countries," says Ivanov. He says some countries had used control arrangements as a tool in competition for arms markets and criticized sanctions against Russian enterprises suspected of illegal links to countries seeking to have nuclear technology.

30 June In the Czech Republic, an analysis of the samples taken from pressurized containers labelled 'phosgene', which were discovered in a former industrial complex at Chvaletice, in the region of Pardubice, two weeks previously, has confirmed the contents as being phosgene gas. Speaking to reporters, the deputy governor of Pardubice, Roman Linek

says: "Now we are solving its transfer to the State Institute of Nuclear, Biological and Chemical Protection for disposal."

30 June The US Department of Health and Human Services Office of Inspector General releases *Summary Report on Universities' Compliance with Select Agent Regulations*, which summarizes the results of reviews of the compliance by fifteen universities with select agent regulations and whether they are complying with federal regulations. The report finds that at eleven of the universities certain controls did not comply with federal regulations, with weaknesses identified in at least one control area that could have compromised the ability to safeguard select agents from accidental or intentional release. It recommends that the Centers for Disease Control and Prevention resolve the weaknesses identified.

30 June In Phoenix, Arizona, a man faces life imprisonment after a federal court convicts him of attempting to produce a biological weapon. According to the Associated Press, Denys Ray Hughes was arrested a year ago after the police found "formulas for producing ricin, six bottles of castor beans and dimethyl sulfide" hidden behind the walls of one of his properties in Wisconsin. According to the prosecution, Hughes was working alone and was not a member of a terrorist organization. There was reportedly no evidence pointing to specific plans of using the substances in an attack. Hughes is scheduled to be sentenced in October.

July The US Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency transmit to Congress *Review of the Revised Plan for Off-Site Treatment of Newport Chemical Agent Disposal Facility's Caustic VX Hydrolysate at DuPont Secure Environmental Treatment Facility in Deepwater, New Jersey*. The report follows an earlier review by the CDC in which the Environmental Protection Agency [EPA] concluded that the information regarding the ecological risk of treated Caustic VX Hydrolysate (CVXH) discharge into the Delaware River was inadequate [see 6 Apr 05]. It concludes thus: "It has been demonstrated that DuPont's modified process was effective, on the laboratory scale, in removing phosphonates and eliminating VX and EA 2192 contaminants if present. During the summer of 2005, DuPont completed testing done to meet EPA's data needs for assessing the potential ecological impact on the Delaware River. EPA believes that all of its previous ecological concerns have been addressed by DuPont and/or the Army… CDC believes there is a need to determine what impact, if any, long-term storage will have on the material's characteristics and its conformance to the clearance criteria… EPA recommends that bioassessment studies be conducted instream by DuPont to establish baseline in-stream benthic macroinvertebrate and fish community structure in the vicinity, including downstream of the DuPont discharge, before CVXH processing begins.

2 July In the UK House of Commons, the Foreign Affairs Committee publishes *Foreign Policy Aspects of the War against Terrorism*, which addresses issues raised by the Foreign Office in its response to the original report of the same name [see 8 Jun 05]. With regard to the BWC, it states: "[The Government] rejected the Committee's calls for the establishment of a 'coalition of the virtuous' which would establish a verification mechanism for the BWC, since an 'optional arrangement would inevitably mean that those States about which the UK had most concerns could opt out of a protocol leaving those inside any such coalition with more onerous obligations than others, without providing us with any more security'. Nonetheless, we remain concerned about the lack of a verification regime… Another concern is the forthcoming BWC Review Conference. The Government described current work on the BWC in its response to the last Report [see 8 Jun 05]… Daniel Feakes from the University of Sussex and other academics raised concerns about the BWC Review Conference. [They say it is] imperative that constructive preparations and consultations for this year's review conference begin as early as possible... We conclude that a successful outcome of the [BWC] Review Conference is essential in order to preserve confidence in the global non-proliferation regime. We recommend that the Government outline what progress has been made by the various meetings of experts and state parties since the middle of 2005, and set out what it hopes to achieve at the Review Conference. We also recommend that the Government explain how it proposes to ensure compliance with the BWC without the existence of a verification mechanism."

On the CWC, the report states: "We conclude that universality of the [CWC] is a most desirable objective, and we recommend that the Government step up its efforts to encourage Middle Eastern states such as Egypt, Israel, Lebanon, and Syria to ratify the CWC. We also conclude that the destruction of chemical weapons is a priority, and recommend that the Government urge other states to accelerate the destruction of their chemical weapons."

3-13 July In Madrid, a basic course for personnel from Spanish-speaking CWC national authorities takes place. Organized jointly by the national authority of Spain and the OPCW, the aim of the course is to create a greater awareness, assist parties to meet their obligations under the CWC, and to fulfil the objectives of the national implementation action plan. Attending are government officials from the national authorities of sixteen CWC parties, including Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Cuba, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Peru, and Uruguay.

4-7 July At OPCW headquarters, the Executive Council convenes for its forty-sixth [see 16-19 May] session, which is chaired by Hlengiwe Buhle Mkhize of South Africa.

Having considered the matter at its previous session, the Council approves the agreed detailed plan for verification of the destruction of chemical weapons at the Qaf-Molla chemdemil facility in Albania.

The Council approves corrections to the detailed plans for the destruction of chemical weapons at the Open Joint Stock Company (OJSC) 'Khimprom' CWPF in Novocheboksarsk, Russia. It also approves corrections to the detailed plans relating to the conversion of both the OJSC 'Khimprom' CWPF in Novocheboksarsk and the OJSC 'Khimprom' CWPF in Volgograd.

The Council notes the report by Director-General Rogelio Pfirter on the progress made by the parties that have been granted extensions of deadlines for the destruction of their Category 1 chemical weapons.

The Council approves, having considered the matter at its previous session, a recommendation that the Conference of States Parties at its eleventh session should consider a request submitted by Libya for an extension of the Phase 4 deadline for the destruction of all of its Category 1 chemical weapons stockpiles, as well as Libya's proposal for the establishment of specific deadlines for the destruction of 1, 20 and 45 per cent of its stockpiles,

The Council approves a request by China and Japan for an extension of the deadline for completing the destruction of the

chemical weapons abandoned by the Japanese Imperial Army in China.

Having considered the matter at its previous session, the Council approves a facility agreement with Albania regarding onsite inspections at the Qaf-Molla chemdemil facility.

The Council notes the report by the Rogelio Pfirter on progress made on the decision on follow-up to the plan of action regarding the implementation of Article VII. It notes the progress made by parties, particularly in the establishment or designation of national authorities, and notes that the number still needing to do so had decreased from 24 at its previous session to 14. It further notes that the number of parties yet to enact legislation and to adopt administrative measures to implement the CWC remains essentially unchanged at 68, although 58 parties have provided the Secretariat with information about their progress. The Council requests Pfirter to designate within the Secretariat a 'help desk' for assisting parties with regard to establishing national implementation measures.

The Council requests the Secretariat to finish setting up the data bank of information on assistance and protection, to make it available to parties as required by paragraph 5 of Article X by the eleventh session of the Conference of States Parties, and to review and update it regularly.

The Council approves lists of new validated data for inclusion in the OPCW Central Analytical Database, which it had received in the form of a note from Pfirter.

5 July In Ning'an, northeast China, a team of Chinese and Japanese bomb-disposal experts begin an eight-day operation to excavate a pit at a factory where they expect to recover around one hundred chemical munitions from a total of more than two hundred munitions that were abandoned there by the Japanese Imperial Army, so reports Xinhua news agency, quoting Wang Xuefeng, a Chinese official on the recovery team. The pit where the munitions are located is approximately two hundred metres from a secondary school. According to the Associated Press, the shells had been buried in the pit after the Ningan Chemical and Light Industry Company had received them as scrap metal. The operation is completed after six days. In total, 210 chemical munitions are recovered. [See also 20 Sep 05 and 12 Oct 05]

Speaking at the site, Liu Yiren, a Chinese Foreign Ministry official says: "We're not satisfied with the speed of processing the abandoned chemical weapons by the Japanese side in China".

Meanwhile, Director-General of the Chinese Foreign Ministry Liu Yiren says that China may extend by two years the deadline by which Japan must complete its chemdemil operations in China while it discusses a plan to build a $10 billion plant with Japan in Jilin province to destroy mustard gas shells [see 27 Apr]. "Japan has begun work at only a third of 60 weapon burial sites… Many of the sites are yet to be touched", says Liu.

6 July Radio Sweden refers to a report by the local authority of Stockholm, which states that "big holes" have been found in the authority's plan to deal with disasters such as a terrorist attack, with medical services in particular not being prepared for a major gas leak or biological weapon attack.

6 July The US Department of Health and Human Services announces the creation of the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE), which is to be co-ordinated by the Office of Public Health Emergency Preparedness (formerly known as the Office for Research and Development Coordination). The PHEMCE will define and prioritize requirements for medical countermeasures held in the Strategic National Stockpile, co-ordinate research to address such requirements; and establish strategies for their deployment and use.

7 July At Delft University, the Netherlands, the two-week OPCW analytical skills development course concludes [see also 27 Jun – 8 Jul 05]. The first session, attended by nineteen participants, was held in Helsinki at the Finnish Institute for Verification of the CWC (VERIFIN). A further twenty participants attended the second session of the course held in Delft. The course was designed to benefit qualified analytical chemists from CWC parties whose economies are in transition or in development. Its purpose was to increase national capacities to implement the CWC, to facilitate the adoption of best practice, and to expand the pool of personnel qualified for employment with their national authorities and with the Technical Secretariat.

7 July At OPCW headquarters, the OPCW open-ended working group – which was established by the Executive Council at its forty-fourth session [see 14-17 Mar] to make preparations for the second CWC Review Conference – convenes for its first session. Representatives from forty-four CWC parties attend the session, which is chaired by Ambassador Lyn Parker of the UK. In his address to the group, OPCW Director-General Rogelio Pfirter refers to the steps taken by the Technical Secretariat in preparation for the Review Conference and reiterates the availability of the Technical Secretariat to provide any assistance required by the group. The group agrees to fix the dates of the Review Conference from 7 to 18 April 2008. It will reconvene at the end of September.

8 July The Vietnamese environment is still suffering the after effects of the damage inflicted on it – principally from the use of chemical defoliants – by US forces during the Vietnam War, according to a recent study published by Yale University Press and reviewed by *The* (London) *Independent*. *Vietnam: A Natural History*, written by Eleanor Jane Sterling, Martha Maud Hurley and Le Duc Minh – all from the Center for Biodiversity and Conservation at the American Museum of Natural History – finds that repeated applications of the chemicals "sometimes eradicated all vegetation". It also concludes that "in addition to effects on individuals, the defoliants undoubtedly modified species distribution patterns through habitat degradation and loss, particularly in wetland systems".

10 July In Gaza, the Israeli army has been using an explosive device which contains "toxics and radioactive materials" which "burn and tear the victim's body from the inside and leave long term deformations", so reports the Ma'an news agency, referring to an announcement made by the Palestinian ministry of health on the subject. The ministry has reportedly called upon the international community and the humanitarian organizations to despatch a team to investigate the matter. Speaking to Al-Jazeera, Jomaa al-Saqqa, head of the emergency service at Shifa hospital in Gaza City says: "[The bodies] have been deformed in a very ugly way that we have never seen before… When we try to Xray dead bodies, we find no trace of the shrapnel that hit the person killed… We are sure that Israel is using a new chemical or radioactive weapon in the current operation. More than 25% of the injured are children, aged under 16."

10 July UK Home Secretary John Reid announces the release of *Threat Levels: The System to Assess the Threat from International Terrorism*, which aims to explain

what threat levels are and how they are used, and *Countering International Terrorism: The United Kingdom's Strategy*, which describes the UK's counter-terrorism strategy and explains what organizations and individuals can do to help in its implementation.

10-12 July In Santiago, Chile, an *Interpol Americas Bioterrorism Prevention Workshop* takes place [see also 21-23 Nov 05]. The purpose of the meeting, which is attended by participants from twenty-seven countries, is to educate senior law enforcement officials in such areas as biohazards, laboratory security and bioterrorism identification. In his remarks on the opening day, Interpol Secretary-General Ron Noble says: "I have no doubt that the threat [of a bioterrorist attack] is real. Moreover, given the magnitude of the harm that would be caused by a bioterrorism attack – hundreds, thousands, and even millions of deaths are possible – it is clear to me that this alone mandates that we take this threat seriously."

The *Bioterrorism Incident Preparedness and Response Guide* – which is intended as a comprehensive manual to help law enforcement officers to prepare for, and to deal with, acts of bioterrorism – is released during the workshop. In addtion, the Bioterrorism Prevention Resource Center is launched on the Interpol website. Its purpose is to enable officers to find training materials, online tests, scientific documents, planning guidelines, response and crisis management materials, and other useful resources.

10-14 July In Kruševac, Serbia, the third [see 25-29 Jul 05] international basic training course on assistance and protection takes place at the Nuclear, Biological, and Chemical Defence Training Centre of Competence. The course is held further to an offer made by the government of Serbia under Article X of the CWC, and is jointly organized by the Serbian government and the OPCW. Attending the course are eighteen participants from the following CWC parties: Algeria, Argentina, Bolivia, Bosnia and Herzegovina, Burundi, Dominica, Latvia, Libya, Malta, Nigeria, Qatar, Russia, Serbia, Sri Lanka, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Turkey, and Viet Nam. The course is an annual event offered by the government of Serbia under Article X of the CWC. Its purpose is to provide training on planning and establishing a support team for the protection of civilian populations against chemical weapons; mounting rescue operations in contaminated areas; responding to incidents involving chemical-warfare agents; using individual and collective protective equipment; using monitoring, detection, and decontamination techniques; and taking samples.

12 July In the Malaysian lower house of parliament, Deputy Minister of Defence Zainal Abidin Zin says the government will spend $19.8 million over the next five years to strengthen its "medical defence" against bio-terrorism. He also says that the Science and Technology Research Institute of Defence is collaborating with the Ministry of Health on anti-bioterrorism related efforts, and that the Ministry of Defence has set up a special unit to conduct in-depth research on bioterrorism.

12 July In Sri Lanka, the Liberation Tigers of Tamil Eelam (LTTE) are manufacturing a "special weapon" to attack government forces in Jaffna, so reports the *Asian Tribune*, quoting Peter Chalk of Queensland University and the Rand Corporation, who discussed the subject with an audience in Melbourne. Chalk, whom the *Tribune* describes as a leading expert on LTTE strategies, is quoted as saying that the LTTE fired a "chemical" into an army camp in one of its early offensives, but the offensive backfired when the wind changed direction. The *Tribune* quotes unidentified sources as saying that production of the weapon was carried out in an underground laboratory in the jungle of Vanni. The Sri Lankan Ministry of Defence issues a press release stating that it has taken note of the allegations.

12 July In Khasavyurt, Dagestan, during an exchange of gunfire, Russian forces wearing "special clothes of anti-gas protection" use "some liquid gas" against local insurgents, so reports Kavkaz Center, quoting unidentified "eyewitnesses".

12 July In Richmond, Virginia, there is the fourth annual Toxic Industrial Chemicals (TICs)/Toxic Industrial Materials (TIMs) conference on *Reducing Chemical Terrorism Risk: The Role of Public-Private Partnerships*.

12-13 July In London, there is a conference on Biological Weapons Attribution, at King's College London, which is organized jointly by the KCL Centre for Science and Security Studies, and the Center for Contemporary Conflict of the US Naval Postgraduate School, Monterey, California. Among those speaking is US Assistant Secretary for Verification, Compliance, and Implementation Paula A. DeSutter. The meeting takes place under the 'Chatham House rule'.

12-13 July In Beijing, there is a United Nations seminar on *Implementing the United Nations Security Council Resolution 1540 in Asia and the Pacific*. It is organized, at the behest of China, by the UN Department for Disarmament Affairs, and is additionally supported by the European Union and the governments of Australia, Denmark, Norway and the UK. Around fifty participants from governmental and non-governmental sectors, mainly from the Asia-Pacific region, and international organizations attend the event, which is the first outreach activity undertaken by the 1540 Committee in the Asia-Pacific region.

13 July In the USA, the Critical Art Ensemble [see also 17 Nov 05] has put together a display, a performance, a film, and a book entitled *Marching Plague*, so reports Counterpunch. It is designed as a critique of the notion that bioterror presents a serious practical threat, and points out that the US government's spending to counter bioterror is a means of "maximizing profit and consolidating power through the matrix of biocatastrophe".

14 July From Jerusalem, Voice of Israel radio quotes an unidentified "senior" Israel Defence Force officer as saying, with regard to the ongoing conflict in northern Israel and southern Lebanon, that the Israel Defence Force is prepared to deal with missiles carrying chemical warheads, though its assessment is that Hezbollah does not possess such weapons.

14 July The UK Ministry of Defence publishes a report on *Historical Survey of the Porton Down Volunteer Programme 1939-1989*, which concludes that at least five sets of tests using chemical agents on more than four hundred military personnel from 1939 to 1989 at its chemical and biological warfare research establishment, Porton Down, "may not have met the ethical standards required". The Ministry commissioned Sir Ian Kennedy, an independent ethical assessor, to investigate the matter six years ago in response to concerns by veterans that they may have suffered continuing damage to their health. The tests in question include: the testing

on volunteers in 1945 of an unknown substance found in captured German shells; the trial of VX nerve agent using a potentially lethal dosage; a test in 1958 in which six soldiers were severely injured after their genitals were exposed to mustard gas to test prototype protective underwear; a 1951 study of a nerve agent, the lethal dose of which had not been determined; and the trial of liquid nerve agents on bare skin between 1951 and 1953, which led to one death. Referring to trials during the Second World War involving, amongst others, the exposure of volunteers to agents found in German shells, and tests in the 1950s involving the nerve agents VX and GD, the report states: "These trials clearly amount to serious departures from what should have been done." The London *Daily Telegraph* quotes an unidentified Ministry of Defence spokesman as saying: "These trials must be viewed in the context of the Second World War and the Cold War and their associated pressures."

15-17 July In St Petersburg, the leaders of the eight industrialized nations – the UK, Canada, France, Germany, Italy, Japan, the USA, and Russia – convene for the G8 Summit to discuss, amongst other things, the proliferation of weapons of mass destruction. A statement on non-proliferation issued at the end of the Summit states: "We will facilitate adoption by the [Sixth BWC] Review Conference of decisions aimed at strengthening and enhancing the implementation of the BTWC… We continue to support full implementation of the CWC… We urge all states to implement fully UN [Security Council] Resolution 1540 [see 28 Apr 04], including reporting on their implementation of the Resolution… We welcome the decision of UN Security Council Resolution 1673 [see 27 Apr] to extend the mandate of the 1540 Committee in promoting the full implementation of the resolution. We intend to continue working actively at national and international levels to achieve this important aim, and stand ready to consider all requests for assistance in this regard… We welcome the increasing international endorsement for the [Proliferation Security Initiative] as it was demonstrated at the High Level Political Meeting in Warsaw [see 23 Jun]… We remain committed to our pledges in Kananaskis [see 26-27 Jun 02] to raise up to $20 billion through 2012 for the Global Partnership…"

Also released at the end of the Summit is a report on the G8 Global Partnership, which states: "Fourteen States have now joined the Global Partnership. We reaffirm our openness to further expansion of the Partnership to recipient countries, including those from the CIS, and donor countries, which support the Kananaskis documents… Since 2002 more than 1400 research projects have been funded through the International Science and Technology Center (ISTC) in Russia and the Science and Technology Centre in Ukraine (STCU) by the US, the EU, UK, Canada, Japan, and other countries, involving more than 17,000 former weapon scientists. In the coming year, the funding parties will analyse the activities and ways to improve further the effectiveness of the two Centers… The partners welcome that Russia has substantially increased its own funding for the GP since the commencement of the initiative. Russia has already expended more than $1 billion for chemical weapons destruction and near $220 million for nuclear submarine dismantlement… Significant work remains to be done to complete successfully current programmes by 2012 to address all Kananaskis priorities… The GP countries recognize that financial assistance for chemical weapons destruction in the Russian Federation will be needed mainly in the years 2006-2009… The Global Partnership is open to further expansion in accordance with the Kananaskis documents… Nearing the mid point in the lifespan of the Global Partnership it is recognized that there is a need to undertake an unbiased qualitative and quantitative assessment of the Global Partnership in order to provide a clear picture of what remains to be done." Annexed to the report is an annual report by the Global Partnership Working Group – which brings together all countries participating in the Global Partnership and serves as a forum to identify and resolve any problems that arise – containing consolidated report data for each country.

16-28 July In Suffield, Alberta, an exercise involving 150 troops from Belgium, Canada, Denmark, France, Germany and the UK in dealing with weapons of mass destruction takes place at the Defense Research and Development Canada. Exercise 'Precise Response' involves training in how to recognize biological weapons, the decontamination of radioactive areas and the detection of nuclear devices.

17 July In the UK, researchers at Oxford University have found that servicemen who participated in the Porton Down chemical warfare experiments from 1939 to 1989 have a consistently lower quality of life than age-specific estimates of the general population, which may be associated with their past experience at Porton Down, so reports the journal *Occupational Medicine* [see also 14 Jul]. The Medical Research Council (MRC), funded by the Ministry of Defence, commissioned research involving a cohort study of mortality and cancer incidence in up to 40,000 veterans including some who were at Porton Down between 1939 and 1989 and some who were not [see 11 Jun 02]. This research is currently ongoing. The current results relate to an exploratory health survey of all 436 members of the Porton Down Veterans Support Group. The purpose of the health survey was to describe the morbidity experienced by members of the Group and to identify any striking specific morbidities which might have been unsuspected previously. The most common diagnoses or hospital admissions reported were diseases of the circulatory system. During their first five years at Porton Down the most common symptoms were headaches, irritability or outbursts of anger, and feeling un-refreshed after sleep. Later on the most common symptoms were fatigue, feeling un-refreshed after sleep and difficulties in sleeping.

17 July In the US Senate, Senior Adviser to the State Department Christina Rocca says that the USA continues to support conducting arms control and disarmament negotiations through the Conference on Disarmament. Speaking before the Foreign Relations Committee, Rocca says: "The administration believes that the Conference on Disarmament retains its potential as one of the world community's primary instruments for promoting a safer and more secure environment… [However], the continued deadlock [to negotiate a fissile material cut-off treaty] raises questions as to its continued effectiveness… [Negotiations this year are] critical to the continued existence of the Conference on Disarmament as a meaningful international negotiating forum."

17 July The US Congressional Research Service releases a report on *China and Proliferation of Weapons of Mass Destruction and Missiles: Policy Issues*. Appended to the report is a table that summarizes the US sanctions imposed or waived on Chinese entities for weapons proliferation since 1991, including the sale of prohibited chemicals.

18 July UK Armed Forces Minister Adam Ingram says that next year the Ministry of Defence will contribute to the construction of the Kizner chemdemil facility in Russia with the procurement of equipment and the "provision of electricity supply infrastructure". Speaking during a visit to the

Shchuch'ye chemdemil facility in Russia, the construction of which the UK is also currently supporting [see 13 Oct 05], Ingram says: "We expect that Canada will provide most of the funding for the destruction equipment. The UK expects to contribute several million pounds for these projects, in addition to the approximately 25 million [pounds] that we expect to spend at Shchuchye."

18 July At OPCW headquarters, the Dutch Public Prosecution Service and the National Crime Squad, International Crimes Unit are scheduled to provide a presentation on the prosecution and conviction of Frans van Anraat. Last year, the district court of The Hague found van Anraat guilty of complicity in war crimes and sentenced him to fifteen years imprisonment [see 21 Nov 05], after holding that he knowingly supplied Iraq with some of the chemicals which it later used in military operations during the 1980s.

20 July In Lebanon, the Israeli air force has been dropping chemical munitions during the ongoing conflict there, so reports the Belgian daily *De Standaard*, quoting a Belgian-Lebanese doctor. Bachir Cham, speaking on mobile telephone from Beirut, makes the allegations during a press conference in Brussels. He says that the bodies of eight victims taken to a hospital in Sidon bore no traces of blood loss or internal haemorrhaging as would be expected following an explosion; the hair, beards and moustaches of the victims were untouched; and the colour of the skin was black. [See also 14 Jul]

20 July In Nashville, Tennessee, a federal court indicts a man for possessing, amongst other things, ricin. According to the Associated Press, William Michael Matthews is currently serving a nine-month sentence for violating a protection order taken out by his wife after she alerted the authorities on 31 May that there were suspicious items in the couple's garden shed. The ricin was found in a sealed baby food jar in the shed. It remains unclear what Matthews' intentions and motives were. [See also 9 Feb]

21 July The Japanese germ warfare laboratory Unit 731 planned to attack US troops on Japanese territory with biological weapons in August 1945 after the Japanese surrender, but it abandoned the plan after being told by the chief of staff and deputy chief of the Japanese Imperial Army not to "die in vain", so reports the Kyodo news agency, citing a Japanese journalist who was formerly a civilian army employee at Unit 731. Fukiko Aoki, who undertook his research in Washington, DC, refers to a copy of a hand-written memorandum written by the then head of Unit 731, General Shiro Ishii. The memorandum was analysed by Keiichi Tsuneishi, a professor at Kanagawa University, Yokohama. Because of the fragmented nature of the memorandum, it is unclear how Ishii planned to carry out the attacks, but the memorandum enunciates developments involving Unit 731 over eleven days from 16 August 1945, the day after Japan's surrender. It states: "Will transport to the home country 'maruta' [codename for prisoners of war on whom biological weapons were tested], PX [infected fleas], as much as possible." Other fragments of the memorandum state: "American troops arrive (at Sagami Bay near Tokyo) on 25th (of August)"… "Will scatter (the weapons) across the country"… "personnel and equipment can be transported with sailboats."

21 July-29 September In The Hague, the seventh OPCW associate programme takes place. Participating in the course are representatives from twenty-four OPCW parties, including Algeria, Belarus, Brazil, Cambodia, Croatia, Eritrea, Ethiopia, Gambia, Ghana, India, Indonesia, Jordan, Malawi, Nigeria, Panama, Philippines, Rwanda, Sri Lanka, Tajikistan, Tunisia, Turkey, Uganda, Uruguay and Zambia. Its purpose is to provide chemists and chemical engineers from CWC parties, whose economies are either developing or in transition, with a better understanding of the CWC. Included in the course is project work at a pilot chemical plant at the University of Surrey, UK.

24 July The UK Foreign and Commonwealth Office releases its ninth [see 20 Jul 05] annual report on *Strategic Export Controls*, covering calendar year 2005.

The report records that in 2005 a total of 63 Standard Individual Export Licences (SIELs) and Standard Individual Transhipment Licences (SITLs) were denied or revoked during the year (compared to 80 in 2004) because they risked "contributing to proliferation of weapons of mass destruction or ballistic missiles". The total number of SIELs and SITLs denied or revoked for all reasons was 129 (compared to 148 in 2004).

Information extracted from the four quarterly reports for the period 1 January to 31 December 2005 shows that export licenses were granted for:

- Various items relating to "chemical agent detection" to Australia, Austria, Bahrain, Belgium, Brazil, Brunei, Canada, Chile, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, India, Iraq, Italy, Japan, Jordan, Kuwait, Luxembourg, Malaysia, Netherlands, New Zealand, Norway, Oman, Poland, Portugal, Qatar, Romania, Russia, Saudi Arabia, Serbia and Montenegro, Singapore, Slovakia, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, Turkey, Ukraine, United Arab Emirates, and USA.
- "[C]hemicals used for chemical processes" to Hong Kong Special Administrative Region, Russia, Singapore, Sudan, and Thailand.
- "[C]hemicals" to India.
- "[T]est equipment for chemical agent test equipment" to India.
- "[T]oxins" to Australia, Canada, India, Japan, New Zealand, Norway, South Africa, South Korea, Switzerland, Taiwan, Turkey, Uganda, and Ukraine.
- "[T]echnology for the production of toxins" to Cameroon, China, Colombia, Costa Rica, Croatia, Dominica, Ecuador, Egypt, El Salvador, Georgia, Guatemala, Honduras, Iceland, India, Indonesia, Israel, Ivory Coast, Jordan, Kazakhstan, Kuwait, Laos, Lebanon, Malaysia, Mexico, Morocco, Nicaragua, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Puerto Rico, Qatar, Romania, Russia, Saudi Arabia, Serbia and Montenegro, Singapore, South Africa, Taiwan, Thailand, Tunisia, Turkey, Ukraine, United Arab Emirates, Uruguay and Vietnam.
- Various items relating to "biological agent detection" to Australia, Austria, Belgium, Brazil, Canada, Chile, Czech Republic, Denmark, France, Finland, Germany, Greece, India, Italy, Japan, Kuwait, Luxembourg, Malaysia, Netherlands, New Zealand, Norway, Portugal, Saudi Arabia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, United Arab Emirates, and USA.
- "[H]uman pathogens" to Canada, Hong Kong Special Administrative Region, India, Israel, Norway, Singapore, South Africa, Switzerland, Turkey, and USA.
- "[A]nimal pathogens" to Iran and Jordan.
- "[P]lant pathogens" to Serbia and Montenegro.
- "[M]icro-organisms" to USA.
- "[A]nthrax vaccines" to Czech Republic and Denmark.
- "[B]otulinum toxin vaccines" to USA.
- Various items relating to a "defensive system against NBC agents" to Belgium, Czech Republic, Finland, Germany,

Greece, Italy, the Netherlands, Norway, Poland, Portugal, South Africa, Sweden, United Arab Emirates and Venezuela.
- NBC (military and civil) "filters", "respirators", "clothing", "protective equipment", "decontamination systems", "decontamination equipment", and/or items relating thereto, to Australia, Austria, Bahrain, Belgium, Canada, Croatia, Czech Republic, Denmark, France, Finland, Germany, Greece, Hong Kong Special Administrative Region, Iraq, Italy, Japan, Latvia, Malaysia, Malta, the Netherlands, New Zealand, Poland, Portugal, Romania, Russia, Saudi Arabia, Singapore, Spain, Thailand, Turkey, United Arab Emirates, and USA.
- Items relating to "tear gas/irritant ammunition" to Australia, Bahrain, Belgium, Bermuda, Botswana, Brunei, Canada, Chile, Denmark, Finland, Hong Kong Special Administrative Region, the Netherlands, Norway, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Kuwait, Luxembourg, Malaysia, Malta, Mauritius, the Netherlands, New Zealand, Norway, Oman, Papua New Guinea, Poland, Portugal, Qatar, Singapore, South Africa, South Korea, Spain, Sweden, United Arab Emirates, and USA.
- "[T]ear gas/riot control agents" to Australia, Bahrain, Belgium, Botswana, Canada, Chile, Denmark, Finland, France, Germany, Greece, Hong Kong Special Administrative Region, Iceland, Ireland, Italy, Japan, Kuwait, Luxembourg, Malaysia, Malta, Mauritius, the Netherlands, New Zealand, Norway, Oman, Papua New Guinea, Poland, Portugal, Qatar, Saudi Arabia, Singapore, South Africa, South Korea, Spain, Sweden, United Arab Emirates and USA.
- "CS hand grenades" to Australia, Bahrain, Belgium, Botswana, Brunei, Canada, Chile, Denmark, Finland, France, Germany, Greece, Hong Kong Special Administrative Region, Iceland, Ireland, Italy, Japan, Kuwait, Luxembourg, Malaysia, Malta, Mauritius, the Netherlands, New Zealand, Norway, Oman, Papua New Guinea, Poland, Portugal, Qatar, Singapore, South Africa, South Korea, Spain, Sweden, United Arab Emirates and USA.
- "[T]ear gas for self protection" to Bermuda.
- "[I]nert CS hand grenades" to Turkey.
- "[I]nert tear gas/irritant ammunition" to Norway.
- "CBW munitions disposal equipment" to USA.
- "[C]omponents for pepper sprays for self protection" to USA.

25 July In Suihua, in the north-eastern Chinese province of Heilongjiang, a team of fifteen Japanese experts arrive with a mission of cataloguing and sealing 677 chemical munitions – which were abandoned there by the Japanese Imperial Army, in preparation for their later destruction. Workers in Suihua uncovered the munitions between 27 June and 2 July during preliminary work to construct a shopping centre. [See also 5 Jul]

25 July In the Indian lower house of parliament, the Lok Sabha, Minister for Home Affairs Sri Prakash Jaiswal states in a written reply that the government has developed three standard operating procedures to deal with terrorist attacks involving the use of radiological, nuclear materials, biological agents and chemical weapons. The procedures include programs for identification and yearly reviews of potential targets, creation and training of specialized response teams, and training for fire and police personnel. Under the plan, four out of eight battalions of the National Disaster Response Force have been set aside for responding to radiological, nuclear, biological or chemical attacks.

25 July The Palestinian Information Centre, which is affiliated to Hamas, quotes Juma' al-Saka, the deputy manager of Gaza's al-Shifa hospital, as saying that Israeli Occupation Forces troops are using "internationally prohibited weapons, chemicals and phosphoric materials" against Palestinians in Gaza. He says that the sudden death of the wounded after surgery proves that there was something strange in their bodies, and that an international committee should be sent to Gaza to investigate. [See also 20 Jul]

25-27 July In Ouagadougou, Burkina Faso, a legal workshop for national authorities of CWC parties in central and west Africa takes place. Attending are forty participants from the following eighteen CWC parties: Benin, Burkina Faso, Burundi, Cameroon, Chad, Cote d'Ivoire, Democratic Republic of the Congo, Ghana, Guinea, Liberia, Libya, Mali, Nigeria, Rwanda, Sao Tomé and Principe, Senegal, Sierra Leone and Togo. The purpose of the workshop, which is a follow-up to an earlier workshop for central African national authorities [see 5-7 Jul 05], is to continue the provision of practical assistance to national authorities of CWC parties in accordance with the Plan of Action regarding the implementation of Article VII obligations [see 21-24 Oct 03].

25-27 July In Monterey, California, a conference on *Terrorism, Transnational Networks, and WMD Proliferation: Indications and Warning in an Era of Globalization* is scheduled to take place at the Naval Postgraduate School. The Advanced System Concepts Office of the Defense Threat Reduction Agency is sponsoring the conference.

26 July In Washington, DC, during a press conference, Director of the Federal Bureau of Investigation, Robert Mueller, announces the creation of a WMD Directorate, which will focus on preventing an attack on the USA with chemical, biological or nuclear weapons. The head of the new unit will be Vahid Majidi, formerly the head of nuclear weapons research and counter-proliferation programmes at the Los Alamos National Laboratory in New Mexico. Majidi says his office looks at the range of possible attacks, from the individual who mails an envelope filled with white powder to efforts to detonate a nuclear weapon on US soil.

28 July China promulgates a revised version of its Regulations on Export Control of Dual-Use Biological Agents and Related Equipments and Technologies [see 14 Oct 02], which now includes an additional fourteen types of viruses, toxins, bacteria, and equipment, including the Severe Acute Respiratory Syndrome (SARS) virus, so reports Xinhua news agency, quoting a Foreign Ministry spokesman. Speaking to reporters, Liu Jianchao says: "[T]he Chinese side wishes to strengthen exchange and cooperation with various countries in the area of proliferation prevention and export control."

This Chronology was compiled by Nicholas Dragffy from information supplied through HSP's network of correspondents and literature scanners.

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